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OUR WINTER NUMBER

WILL BE PUBLISHED ON JANUARY 31—

That is, the next issue of *THE CHEMIST AND DRUGGIST*.

A splendid opportunity for wholesalers and manufacturers of druggists' commodities bringing their goods under the direct notice of 12,000 business-men, embracing the picked buyers over the world.

Space for advertisements should be secured without delay by application to the Publisher of the C. & D., 42 Cannon Street, London, E.C.

The number will be exceptionally interesting, with many illustrations, contributed articles, and practical information.

It begins to go to press as soon as this issue is off, but the Publisher will keep his pages open until Tuesday, January 27, which is the last day he can receive advertisements for the issue, except in the case of

Advertisements for the Supplement,

which will be received up to 2 P.M. on Thursday, January 29. We shall be glad to have Supplement advertisements earlier, however.

Summary.

THE *Jeyes v. Pearson* case is half settled (p. 123).

A FEW more chemists' calendars are criticised on p. 118.

PARTICULARS of the late Dr. Schunck's laboratory are given in a note on p. 107.

THE Irish Pharmaceutical Licence examination-questions are printed on p. 138.

COUNSEL'S speeches in the willow-bark case at Edinburgh are summarised on p. 124.

THE WEST RIDING DINNER at Huddersfield was a success. We report it on p. 118.

BOTH SIDES of the sub-post-office question are well discussed by correspondents (p. 129).

CUTTING has recommenced in Glasgow, but the Association stands where it did (p. 108).

ADRENALIN has restored the lives of two dogs within twenty minutes of their death (p. 109).

NEW REGULATIONS for registration as chemist and druggist in Cape Colony are quoted on p. 137.

A 60-GR. WEIGHT is not legal, but a 5j. one is. See the interesting case reported on p. 125.

THE "specially qualified" section of the Dentists Act is again giving trouble, and we discuss its incidents (p. 120).

THE PHARMACEUTICAL SOCIETY is busy with poison cases in London this week. Several are reported on p. 125.

SEVERAL CORRESPONDENTS write about P.A.T.A. matters, wanting more members and more protected articles (p. 129).

"XRAYSER" contrasts Mr. Jesse Boot with Mr. Pierpont Morgan *apropos* more Boots' shops being started in London (p. 119).

AT Brierley Hill, on Thursday, a chemist and a drug-store keeper were fined for selling weak mercury ointment (p. 125).

EIGHTY-TWO MINOR CANDIDATES failed in Edinburgh this month and thirty-two passed. For names of the latter see p. 138.

"A PERSON REGISTERED under the Companies Act can use your title as freely as you can yourself," says Mr. John Harrison (p. 111).

THERE is another pharmaceutical International footballer—Mr. Llewellyn, who passed the Minor this month. He is a Welsh three-quarter (p. 130).

THE Saccharin Company is required by the Court of Appeal to limit the number of patents upon which it has proceeded in the Sucramine case (p. 123).

PROFESSOR DEWAR has made hydrogen liquid in presence of a Royal Institution audience, to whom he showed many low-temperature experiments (p. 112).

ERRAND-BOYS come within the purview of the Shop-hours Act. So the Kingston-on-Thames Magistrate has decided in an action against a chemist (p. 124).

A YOUNG ENGLISH CHEMIST has settled in Livingstone, N.W. Rhodesia, waiting for the town to be mapped out. The C. & D. is there before the surveyor (p. 137).

THE PHARMACEUTICAL FESTIVE SESSION has been resumed with great vigour. Our terpsichorean specialist says the Chemists' Ball held this week is the best of the thirty-seven (p. 111).

A CRITICISM of the Indian portion of the B.P. Addendum by Mr. Thomas Stephenson was submitted to the North British branch of the Pharmaceutical Society on Wednesday (p. 116).

THE LATE M. de Blowitz, of the *Times*, was occasionally indebted to our Paris correspondent, and was always appreciative of any little assistance he received in pharmaceutical matters (p. 121).

THE absorption spectra afforded by various alkaloids are so distinct that Drs. Dobbie and Lauder consider that they may be used to determine the relative constitution of bases empirically allied (p. 112).

GALENICAL-MAKING has been a feature at this week's pharmaceutical meetings. In South London Mr. Truman showed how profits can be increased in pill and ointment making (p. 112), and Mr. J. P. Gilmour showed in Edinburgh how slight variations of B.P. methods yield products quicker or better (p. 116).

BUSINESS remains dull, and changes are few. Cod-liver oil and santolin are dearer; quicksilver and citrate of lithia are lower. German potato spirit has advanced slightly. An auction of first-hand drugs was held this week, the feature of which was the large supply of Sumatra benzoin (p. 133).

Corner for Students.

CONDUCTED BY LEONARD DOBBIN, PH.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

QUALITATIVE ANALYSIS.

AN alloy composed of not more than five elements as chief constituents will form the subject of the next exercise in qualitative analysis. The alloy is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the elements detected are its only constituents.

Students' applications for portions of the alloy (accompanied by a *stamped and addressed envelope*, not a stamp merely) will be received up to Tuesday, January 27, and the samples will be posted on the following day.

Students' reports will be received up to Saturday, February 7. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In this list any element regarded as present in traces only should be distinguished from the essential constituents of the alloy.

The report on this month's analysis will be published next week.

English News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Brevities.

The census returns for Northamptonshire show that there are in that county 183 chemists and druggists, sixteen of whom are women and five manufacturing chemists.

At an inquest held at Bradford on January 19 on a man named Holland, who suffered from rupture, it was stated that the cause of death was exhaustion, due to taking an excessive quantity of blood and stomach pills.

According to the official returns, published as a Blue-book this week, there are in the county of Cambridge five manufacturing chemists, of whom two are returned as unmarried females. Chemists and druggists number 129, all males.

The friends of Mr. Norman Flew (assistant to Mr. Foggitt, chemist, Nevill Street, Southport) entertained him to supper and presented him with a dressing-case last week, on the eve of his departure from the town "for his Final examination."

Mr. J. Priestley, the Secretary of the Bradford Chemists' Association, has been appointed to act on behalf of the Association on the committee entrusted with the drafting of rules, &c., for the formation of the Bradford Chamber of Trades.

At Margate Quarter Sessions on January 16, William Herbert Ray, chemist and druggist, formerly in business in Cecil Square, Margate, was sentenced to six months' hard labour for indecently assaulting a girl who consulted him as a dentist.

In the list of subscriptions to the *Referee* Children's Dinner Fund published on January 18 appears a donation of 12s. from "proceeds of sale of pills and medicine sold by H. J. Irwin at the fancy-dress ball of the Loughborough and Herne Hill Constitutional Club."

Our Manchester correspondent informs us that active preparations are in progress for the reception and *conversation* in connection with the Manchester Pharmaceutical Association in the chemical-department of the Owens College on Wednesday next. I am told, he says, that the expenses will be heavy, too heavy, in all probability, to come out of the funds of the Association. It will require a 50% note at least to pay the bill.

The new Bradford Directory shows that there are now in Bradford and Shipley 74 chemists (registered and unregistered), as against 68 three years ago, as well as 15 manufacturing chemists (against 14), 2 homœopathic (against 1), 5 analytical chemists (as against 3), and 12 druggists (as against 6). Taylors' Drug Company (Limited) have now seven establishments in the district; J. Savage & Co. have seven also, and Boots (Limited) one.

Fire.

On January 14 an outbreak of fire occurred at the business establishment of Mr. A. G. Gamble, chemist and druggist, of Abbeygate Street, Bury St. Edmunds. Smoke was seen issuing from the cellar below the shop, and it was subsequently discovered that a vessel containing turpentine had caught alight. The fire-brigade were communicated with, and, help being given by neighbours, the outbreak was speedily checked.

An Ice Episode.

A party of four ladies and three gentlemen—amongst them being Mr. W. Lewis, chemist—on January 15 went for a moonlight skate on the Jnysawdre Pond near Aberkenfig. The ice at one part of the pond gave way suddenly, and all were immersed in the water, which was from 4 to 5 feet deep. Fortunately all were rescued, but as several of the party had over a mile to walk they arrived home in an Arctic condition.

Mallein in Glanders.

The report of a Departmental Committee of veterinary experts, recently appointed to report to the Board of Agriculture on the possibility of the communication of the infection of glanders, on the methods of infection, and the value of mallein as a preventive or cure, has just been issued. The conclusions arrived at from a series of experiments are that an apparently healthy horse which reacts to mallein must be considered capable of spreading glanders. On the other hand, the fact that seven of the healthy animals introduced into the experimental stable escaped infection was strong evidence that, as a rule, the infective power of horses that were only known to be glandered because they have recently reacted to mallein was very low, and that the danger of the disease being spread by apparently healthy reacting horses while at work was so slight that in practice it might be neglected. In their experiments with horses that had on one or more occasions reacted distinctly to mallein, but had failed to react to later tests, it was found that such animals were incapable of spreading the infection. The committee consider that in practice the mallein tests should not be repeated oftener than every three months when the object is to ascertain whether the animal has actually recovered from glanders.

Workmen's Compensation and Employers' Liability Acts.

The Manufacturers' Section of the London Chamber of Commerce, as representing employers of labour affected by the operation of the Employers' Liability and Workmen's Compensation Acts, has come to the conclusion, in view of the persistent demand for an amendment of the law by trade-unions and members of Parliament in sympathy with them, that manufacturers might usefully be prepared with alternative proposals of their own when such demands are put forward in Parliament. The Section has been of opinion that no amendment of the law is desirable until further experience had been gained with regard to the working of the Acts, but the general tendency of legal decisions on final appeal has been to considerably enlarge the liability of employers, and has had the effect of raising the rates of insurance for the increased risk. Therefore the Section has appointed a special committee to report as to what amendments of the Acts are considered necessary in the interests

of employers of labour, and is inviting observations and suggestions on the more important points which have been evolved by litigation.

Masonic Notes.

Bro. Fred. Bascombe, pharmaceutical chemist, P.M. 2394, was duly installed Worshipful Master of the Great Northern Lodge, No. 1287, on January 15. At this meeting about 100 members of the craft were present, and amongst the visitors were Bro. Michael Carteighe, W.M. of the Galen Lodge, 2394, and Bro. W. J. Rogerson, P.P.D.C., Notts. The usual loyal and Masonic toasts were honoured at the dinner, and an excellent programme of music was provided under the able direction of Bro. Albert Fox, Past Master of Orpheus Lodge.

In the presence of a very large gathering of Staffs Freemasons, included in which were a large number of chemists who are members of the craft, Bro. David Hunter Oxen, chemist and druggist, was on Friday afternoon, January 16, installed as W.M. of the Sutherland Lodge of Unity (No. 463), Newcastle-under-Lyme, Staffs. Worshipful Bro. Holloway Stone, I.P.A., performed the installing ceremony, and Bro. Oxen then invested his officers for the ensuing year. During the ceremony the W.M. and wardens were invested by Worshipful Bro. T. M. Hawley with silver chains, presented to the Lodge as a memento of the Coronation. Worshipful Bro. Oxen presided over the subsequent banquet at the Town Hall, which was largely attended, and his health was very heartily drunk. Worshipful Bro. Oxen is well known throughout the Staffs province, and is a noted humorous reciter.

Birmingham Notes.

Purveyors of "Columbian salad oil" must exercise carefulness, for an important official has had the subject under consideration, and more may be heard later on. It is contended that salad oil is *oleum olivæ optimum*.

The unemployed are parading the principal streets and asking alms. Among them are the ne'er-do-wells, as one pharmacist proved to his cost. Hoping to assist in a good cause, he employed some of the men delivering bills, tidying his warerooms, and the like, but they did not come back. Work was not their game.

Frozen glycerin has appeared again in our midst. It is erroneously thought to be a sign of adulteration, but, curiously enough, it is a sign of purity in most cases, although it is just as well to verify this by physical and chemical tests. Sugar has recently been detected in large quantities of certain brands of imported glycerin.

There ought to be a run on tooth brushes and washes if Dr. Wright's statement, made publicly at a health-lecture on Friday last, is accepted. "In addition to toothache and abscesses, obscure neuralgic pains in other parts of the body, headache, earache, and certain blood-diseases, not infrequently terminating in death, result from the presence of decayed teeth in the mouth."

In common with other centres of learning Birmingham has failed disastrously in "Minor" directions, several candidates complaining that they succeeded in jumping all the hedges and lost in the aggregate. A Birmingham student who had been present at many victories and otherwise during the South African campaign, and was principal dispenser at the Base Hospital at Deelfontein, succeeded in "pulling it off"—Mr. Percy Tymms his name.

"Branch Manager," in a letter to the *Birmingham Mail* re the calomel-pills case, somewhat mitigates the assistant's offence by noting that the prescription was almost illegible, that twenty-two pills could not have been tolerated if the effect was so serious as alleged, and that the dose of calomel is $\frac{1}{2}$ to 5 gr., and not 2 to 5. In charging the public with malevolence towards the chemist, and the carelessness of the laity, he gives two instances of the latter, "culled from this week. I was asked for 4 oz. of white precipitate to clean teeth, and for 1 dr. of phenacetin as one dose for headache. Both customers were sure they were right, and had had them lots of times before."

Analysts' Affairs.

The Southampton Town Council has increased the salary of the public analyst to 325*l.* per annum.

The Derbyshire County Council has agreed to advance the salary of the county analyst (Mr. John White) from 425*l.* to 550*l.* a year, by annual increments of 25*l.*

The Portsmouth Town Council has appointed Dr. Leon (medical officer of health) to be public analyst for three months, at a payment of 50*l.* A motion that an official who would give his whole time to the duties of public analyst was rejected.

Mr. H. F. Cheshire, the Hastings borough analyst, reports that during the past quarter he has analysed, amongst other samples, one of linseed, liquorice, and chlorodyne lozenges. These contained no morphia—*i.e.*, no chlorodyne. Though chlorodyne is well understood to be an opiate, he states the word is not official, and so it is claimed to have no technical meaning. He adds that he analysed, however, a light-coloured chlorodyne lozenge which was genuine.

In his quarterly report the Bradford City Analyst states that among the samples analysed by him were two of ground ginger, and one each of sal volatile, sweet spirit of nitre, paregoric, camphorated oil, cream of tartar, seidlitz-powder, and milk of sulphur. One sample of sweet nitre and that of paregoric were adulterated, the sample of sal volatile was "doubtful," and the rest were genuine. The sweet nitre was only three-fourths the proper strength, and the sal volatile was "somewhat improperly compounded." Of other samples analysed, two of vinegar containing an excessive amount of sulphuric acid, one of beer contained $\frac{3}{10}$ gr. of arsenic per gal., and one of baking-powder contained $\frac{7}{10}$ gr. of lead per lb.

Contracts.

Messrs. Ferris & Co., of Bristol, have secured the tender for the supply of drugs to the Cardiff County Council for six months at 42*l.* 5*s.* 5*d.*

The Luton Board of Guardians has accepted the tender of Mr. White, chemist and druggist, for the supply of drugs to the workhouse at 12½ per cent. off the Apothecaries' Company's list, and for druggists' sundries, at 7½ per cent. off Messrs. Maw, Son & Sons' list. The other tenders sent in were: Messrs. Wootton & Webb, 5 per cent. off both lists; Mr. Chantler, 12½ per cent. and 5 per cent. off respective lists; and Mr. Hall 7½ and 2½ per cent. off.

At the meeting of the Isle of Thanet Joint Hospital Board, Margate, on January 14, the question of obtaining drugs from London houses was discussed. It was complained that the charges of the local chemists were heavy, the cost of anti toxin being from 10*s.* to 15*s.* a dose. The Medical Officer (Dr. White) said the Board got the drugs at a reasonable price, and he did not think they could do better by obtaining them from big firms. It was decided not to alter the existing arrangements.

At a meeting of the London County Council on January 20, the Main Drainage Committee reported on the tenders for the supply of caustic soda to the Abbey Mills Pumping-station. The committee advertised for dry caustic soda, but an offer was made by Messrs. Brunner, Mond & Co. (Limited) to supply caustic-soda liquor at a lower rate, and this the committee at first accepted. It was, however, pointed out that such a course was hardly fair to the other tenderers, and consequently, on reconsideration, the committee recommended that Messrs. Luke & Bailey's tender for dry caustic soda at 11*l.* per ton be accepted, and this was agreed to.

Football.

The return match between Metropolitan College of Pharmacy v. Polytechnic, played on January 17 at Shepherd's Bush, ended in a win for Poly. by 1 goal to nil.

The Disclosure Defence.

The question of "sufficient disclosure" in relation to certain samples taken by inspectors from local chemists for analysis, came before the Kensington Borough Council on Wednesday evening. It appeared that some of the samples were certified by the public analyst as being adulterated, but had been served with a "disclosure" as to their nature, quality, &c. In certain cases, it was said, the disclosure was in such a form that, although apparently complying with the requirements of the Acts, it was more or less liable to

prove misleading to the general public. The Council decided that, in view of the way in which the provisions of the Sale of Food and Drugs Acts are evaded by means of what may be termed the 'disclosure defence,' a communication should be addressed to the Local Government Board, urging the necessity for amending legislation dealing with this important question.

Dr. Schunck's Laboratory.

The late Dr. Schunck has by his will left the whole of his private laboratory to Owens College, Manchester. The laboratory is said to be one of the finest in the kingdom. It is stocked with bookcases filled with rare old volumes. The rooms are decorated with ornaments as beautiful as the skill of men accustomed to work in inlaid wood can make them. Around the room are busts of the great philosophers who too have gone. The whole building is one which invites reflection and study. The late Dr. Schunck has been described reading and writing in his library without hurry, without display, seeking no one to admire the spot, but enjoying it all, as Goethe did, in silence. In his laboratory he had every kind of apparatus at his disposal, and the contents of the bottles which line the shelves of his cases show the practical issue of his researches. There is, for example, the remarkable nitro acid, with curious optical properties, called "chrysamuric acid," the result of Dr. Schunck's experiments in Germany into the action of nitric acid on aloes. The acid crystallises in golden-yellow laminae, sparingly soluble in water, and it reacts like a strong dibasic acid. There can also be seen in the collection specimens of the substances contained in various species of lichens. Dr. Schunck demonstrated that orcin was formed from erythrin by the action of alkalies, and that the pseud-erythrin was not contained as such in lichens, but was in part the ethyl compound of a peculiar acid previously unknown and called by Dr. Schunck "lecanoric." In other bottles the curious will find specimens of several derivatives of erythric and roccellic acid, and most of their salts and combinations. When Dr. Schunck was at work from 1846 to 1855 on the subject of the colouring-matters of madder he made great and important additions to chemical knowledge, and an inspection of the contents of his laboratory reveals evidences of the care with which Dr. Schunck determined the properties, composition, and mode of formation of alizarin, which is one of the most important of the colouring-matters of madder. It is considered probable that it was from Dr. Schunck's work in this direction that Dr. Perkin and Graebe and Liebermann got their first idea of the method of producing alizarin, for Dr. Schunck was the first chemist to obtain this body in a state of purity from the madder-root. To more adequately describe the contents of the laboratory would require a profound knowledge, of chemistry, but it may be mentioned that all the chemical discoveries made by Dr. Schunck are carefully preserved, including those relating to the properties of rubian, the production of succinic acid, the formation of indigo-blue, and the constituents of cotton-fibre.

Must Have a Licence.

George Duffield, described as a chemist's assistant, of Leeds, appeared before the Batley Magistrates, on January 19, to answer a charge of hawking without a pedlar's certificate. It was stated by a constable, named Hoyle, that defendant called at his house and offered for sale a tablet of disinfectant. Witness asked defendant if he had a hawker's licence, and, as he replied in the negative, the officer said he would report him. Duffield now contended that, as he was hawking goods of his own manufacture, he did not require a licence. The Clerk, however, stated that the defence was not valid in this case, though it was pointed out that a baker might hawk bread from door to door without a licence. In the circumstances, the Bench thought the justice of the case might be met if defendant paid the costs.

The Week's Poisonings.

Since our last record eight fatalities from poisoning have been reported. Oxalic acid was taken by a young woman at Hoxton and by a married woman at Seacombe. The acid was obtained from chemists on the usual pretext—to clean brass. Two cases of prussic-acid poisoning have likewise

occurred, one at Birmingham, where a coppersmith named Chatwin committed suicide; and the other at Cirencester, where it was taken by a young groom named Hayward. In both cases bottles were found beside the bodies which had contained prussic acid. In the Cirencester case a 2-oz. bottle had been supplied, with other drugs, in accordance with a prescription for horse-medicine. An elderly widow at Leicester took a fatal dose of a poisonous liniment, and a collier's child at Gwersyllt (4 months old) was given some laudanum "to ease its pain," and it did not survive the dose. Mr. Quinton Hogg, the founder and President of the Regent Street Polytechnic, was asphyxiated in his bath on January 17 by the inhalation of carbon monoxide from a defective gas-stove. At Kensington a labourer named Williams made a strong solution of sulphate of copper in water, a quantity of which he drank, and died.

Charges of Stealing.

Two fishermen at Lowestoft have been committed for trial for stealing, amongst other things, a bottle of orange-quinine wine from the shop of Mr. George K. Rayson, chemist and druggist, Commercial Road, Lowestoft.

A wardrobe-dealer, named Walter Rubeigh, was committed for trial at West London Police Court, on January 15, on a charge of breaking into the shop and house of Mr. Joseph A. Riley, pharmaceutical chemist, at 20 Shepherd's Bush Road, W., and stealing various articles of value.

Irish News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Fires.

A fire broke out in a cycle-shop adjoining the shop of Mr. J. Peel, chemist and druggist, Armagh, on January 15. Fortunately but little damage was done to Mr. Peel's premises.

A fire which destroyed a large drapery establishment at Londonderry on January 15 did considerable damage to the shop of Mr. H. M. Prior, pharmaceutical chemist, which adjoins. The fire was discovered at 6 o'clock, and the occupants of Mr. Prior's house were at once aroused. Mr. Prior is advanced in years and in feeble health, and is suffering considerably from shock. His collection of articles of vertu and precious stones was hastily removed to a place of safety.

Scotch News.

Local newspapers containing marked items of news interesting to the trade are always welcomed by the Editor.

Unprofitable Visitors.

The shop occupied by Mr. Thomas Dunn, chemist and druggist, Selkirk, was entered on Sunday night, January 18, and a few shillings were stolen from the till.

Fire.

In a fire which occurred in a fish-shop in Island Street, Galashiels, on January 17, the shop of Mr. Alexander Noble, chemist and druggist, had a narrow escape. Some damage was done by water to the drugs and chemicals stored in the basement of Mr. Noble's shop, but the brigade were successful in preventing the fire from spreading.

Another Pharmaceutical F.R.S.E.

At the meeting of the Royal Society of Edinburgh on Monday evening, Lord Kelvin formally admitted as a Fellow of the Society Mr. N. H. Martin, pharmaceutical chemist, Newcastle-on-Tyne. Other pharmacists who are Fellows of the Society are Dr. H. B. Baildon, Mr. D. B. Dott, Mr. William Gilmour (Edinburgh), and Mr. W. L. Howie (London).

Edinburgh University.

Sir William Turner, K.C.B., has been appointed Principal of the Edinburgh University in succession to Sir Wm. Muir, K.C.S.I., resigned. Sir William Turner has been professor of anatomy in the University since 1867, and will vacate that office, which has been the best-paid University chair in the United Kingdom. Sir William is President of the General Medical Council, and his ability as a man of affairs dictated his appointment to the honourable position of Principal.

Glasgow Notes.

The reconstruction of the Royal Infirmary is to be proceeded with at once.

Mr. J. G. Wright, chemist, Whiteinch, is about to open a branch at Partick West.

It is significant that in most new pharmacies the night-bell is conspicuous by its absence.

Contrary to popular belief the cold snap now at an end has hindered rather than helped business.

Many Glasgow chemists who order goods direct from manufacturers are now accompanying their orders with arguments and appeals on behalf of the P.A.T.A. plan.

Mr. Weld, of Burroughs Wellcome & Co., is making a special visit to Scotland, and has just concluded a round of friendly calls on the firm's customers and correspondents in Glasgow.

A vacancy has been created in the dispensership of the Ruchill Fever Hospital by the resignation of Mr. McArthur. There is considerable competition for the appointment, which is worth 120*l.* a year.

Mr. McCowan, chemist, Castle Street, Townhead, has purchased a shop in Garngad Road, and one in Alexandra Parade; both were owned by Dr. R. Campbell. Mr. McCowan is now the proprietor of four shops in the Townhead district.

At a meeting held under the auspices of the Glasgow Branch of the National Association for the Prevention of Consumption, it was decided to take steps for the erection of a consumptive sanatorium for Glasgow. Mr. Quarrier, the founder of the Bridge of Weir Sanatoria, protested against the proposal on the ground that it overlapped his work.

Boots, Cash Chemists, are sending a circular on "Dispensing of Medicines" to all the medical men in Glasgow and its neighbourhood. The points emphasised are "drugs perfectly fresh," dispensers under the management and supervision of a competent chemist qualified by examination of the Pharmaceutical Society, and prices often less than half those charged by ordinary chemists.

According to a return just issued, the following are the salaries attached to some of the University chairs: Professor Cleland (anatomy), 1,645*l.*; Professor Ferguson (chemistry), 1,300*l.*; Professor Gray (natural philosophy), 1,000*l.*; Lord Kelvin (pension), 901*l.* 6*s.* 8*d.* Some of the minor chairs draw as little as 200*l.* What will be the figure for Mr. Tocher's lectures on pharmaceuticals?

In view of the fact that recent important advances have been made by a number of manufacturers in the direction of protecting prices, the committee of the Glasgow and West of Scotland Chemists' Trade Association, at a meeting held on January 20, decided that, meantime, the prices ruling in Glasgow are to be maintained. Steps are also being taken by the committee to get Scotch manufacturers to protect their prices, even where they do not at present see their way to put them on the P.A.T.A. list.

French News.

(From our Paris Correspondent.)

M. D. BERTHELOT, who for some time past has held the appointment of assistant professor of physics (or *agrégé*) at the Paris School of Pharmacy, has recently been officially nominated to the professorship. An attempt that was made in the Quartier Latin some time ago to keep him out of this post fell through. The new professor is a son of the famous chemist who bears the same name, and who was

himself a professor at the Paris School of Pharmacy many years ago.

THE LEGION OF HONOUR.—The recent nominations in the order of the Legion of Honour include the names of two professors of chemistry—*i.e.*, Professor Adolphe Carnot, director of the Paris School of Mines, and brother of the murdered President of the Republic, and Professor Prunier, of the Paris School of Pharmacy. The former has been raised to the rank of Officer, and the latter received the red ribbon of Chevalier. Two army pharmacists have received similar distinctions—M. V. E. Haas, of Lyons, being nominated Officer, and M. Pierre S. A. Darbour, of Alger, named Chevalier.

LECTURES ON PHARMACY LAW are becoming the rule at the Superior School of Pharmacy in France. M. Coutant's lectures at the Paris School were poorly attended because the subject is not in the examination curriculum, but the necessity for serious study of the subject is generally felt. M. Moye (Assistant Professor at the Montpellier Law School) has been appointed to deliver a series of lectures on the subject of Pharmaceutical Legislation to the students at the School of Pharmacy in the southern university city during the present scholastic year, and M. Deglin, a Nancy barrister, is to give a course of addresses at the Nancy School of Pharmacy.

A PARISIAN'S TALE OF BRIMSTONE.—Parisians have not yet forgotten the destruction of St. Pierre de Martinique and the name of La Soufrière, the volcano of St. Vincent. So when the daily Press recently announced that (in the course of excavations made for the new electric underground railway) a "Soufrière" had been discovered in central Paris, the gay Boulevardiers felt a shudder that may more easily be imagined than described. Happily the Paris "Soufrière" is one of Nature's less dangerous features. The soil under the city is rich in sulphates, and the organic matter which arrives by infiltration has a tendency to form deposits of sulphur. M. Stanislas Meunier, the eminent geology professor, had noticed what seemed to be a budding Vesuvius when passing an excavation in the rue du Temple, and one or two sensational reporters started the scare which, however, was not seriously accepted in well-informed quarters.

American Notes.

THE U.S. ALCOHOL-TAX.—The Ways and Means Committee of the U.S.A. Congress has decided not to go on with the Bill for the reduction of the tax on alcohol from \$1.10 to 70*c.* per gal. The Commissioner of Inland Revenue was opposed to it.

SODA-FOUNTAIN OWNERS in U.S.A. have not hitherto required a special retail liquor-dealers' licence for using alcoholic flavouring in soda-water, but the I.R. Department has now decided that confectioners and others operating soda-fountains shall pay regular retail liquor-dealers' tax before selling any soda-water drinks or other beverages to which is added spirit of wine or any compound thereof, regardless of the smallness of the quantities used.

ELECTROCUTED DOG REVIVED.—A Dalziel telegram dated New York, January 18, states that Dr. George Crile, of Cleveland Medical College, has restored to life a dog which had been killed by electricity. The dog had been dead for fifteen minutes when, by injecting a solution of adrenalin, it was revived. Another dog was put to death by suspension of respiration by means of a clamp over the windpipe. Adrenalin was used and other means of resuscitation employed, with the result that life returned, and the dog is now alive and well. The same process can be employed on human subjects, and important results are expected.

A CHEMIST'S APPRENTICE named Agap Hatchikian, of Erzeroum, fired three shots at the Armenian Patriarch, Mg. Ormanian, on January 19, whilst the latter was celebrating Mass in the Cathedral of Koum Kapou, Constantinople. The venerable prelate was wounded in the right shoulder, but not seriously, and his assailant was handed over to the police after being nearly lynched by the crowd.

Festivities.

READING AND DISTRICT CHEMISTS' ASSOCIATION.

A social meeting of this Association was held at Table Dainties Restaurant, Reading, on Thursday, January 15. Owing to indisposition among the members there was but a moderate attendance. Mr. E. Cardwell (President) presided, and the programme was arranged by Mr. Moseley, items being contributed by Messrs. Cardwell, Moseley, Surplice, and F. F. A. Tanbridge.

A GOLDEN WEDDING.

In commemoration of the golden wedding of Mr. and Mrs. Humphry Davy, of the Yews, Doncaster Road, Rotherham, the whole of the employes, numbering about fifty, were entertained at the St. George's Hall, Rotherham, on January 15. A concert followed the repast provided, and during an interval the employes presented Mr. and Mrs. Davy with a silver *entrée-dish*. Mr. Davy is a director of Humphry Davy & Sons (Limited), wholesale and manufacturing chemists and druggists, Rotherham.

BRISTOL DANCERS.

The first ball under the auspices of the Bristol Pharmaceutical Association was held at the Royal Hotel, College Green, Bristol, on January 15. The attendance numbered about seventy, and it included Mr. and Mrs. White, Mr. and Mrs. Plumley, Mr. and Mrs. Chandler, Miss Moss, Miss Vigis, Mr. Turner, Mr. Young (President), Mr. J. T. Good, Mr. Watts, Mr. Brinsford, Mr. Francis, Mr. Keevil, &c., and as a result of the efficient manner in which Messrs. R. Chandler, H. J. Plumley, Nevin, and Young discharged the onerous duties of stewards, a very enjoyable time was spent, dancing being kept up until 2 A.M. A balance of 3*l.* has been handed to the Bencvolent Fund.

WHOLESALE DINE.

The staff of Messrs. R. Sumner & Co. (Limited), Liverpool, on Friday, January 16, held at the Stork Hotel their first annual dinner since the firm was converted into a limited company. The chair was taken by the firm's chemist, Mr. R. H. Catley, who was supported by Mr. J. Overton, director, Mr. Percy Overton, and the representatives of the firm. After an excellent dinner a most enjoyable programme of songs by Messrs. Bygrave, Hetherington, Poole, Nicolson, Dodman, and Stone, banjo and mandoline solos by Mr. A. E. Dodman, and recitations by Messrs. Bonar and J. Russell Stevenson was rendered. Mr. Percy Stone acted as accompanist. The gathering was a distinct success.

EDINBURGH CHEMISTS' DANCE.

Under the auspices of the Chemists', Assistants', and Apprentices' Association and the Pharmacy Athletic Club a dance was held in the Masonic Hall, Hill Street, Edinburgh, on the evening of Thursday, January 15. There were about forty couples present, and to the excellent music of Drover's band a most enjoyable dance was kept merrily going till an early hour on Friday. Light refreshments were acceptably served by the Pharmaceutical Society's caterer, Mr. Humphries. The excellence of the arrangements reflected much credit on the committee, and especially the Convener, Mr. G. H. C. Rowland, and the Secretary, Mr. A. E. Kelly. Messrs. E. Osmond Rowland and A. G. Paterson acquitted themselves well as M.C.s.

DINING AT BLACKPOOL.

One of the most successful of the annual dinners of the Blackpool and Fylde Chemists' Association was held on January 14, at the Palatine Hotel, Blackpool, with Mr. C. H. Turner in the chair. There was a large attendance of members, and the visitors included Messrs. Wellings and Wall (Evans Sons Lescher & Webb, Limited, Liverpool), Mr. Balmforth (Jas. Woolley, Sons & Co., Limited, Manchester), Mr. F. D. Crossley (Oldfield, Pattinson & Co., Manchester), Mr. Arbuckle (T. Kerfoot & Co., Manchester), and Mr. Pilkington Sargeant, F.C.S., of the Leeds College of Pharmacy. After a *recherche* dinner and the loyal and patriotic toasts had been dealt with, "The Pharmaceutical

Society" was proposed by Mr. J. H. Taylor, of St. Anne's, who, in a thoughtful speech, considered the position of chemists in relation to the Poisons Schedule. At present poisons are far too easily obtained, he said. The antimony case showed how dangerous to the general public it was for potent drugs to be accessible to anyone. It was anomalous that laudanum could be obtained by the pint with no more formality than labelling and putting in a distinctive vessel. There were other powerful drugs, such as sulphonal, that had no restrictions on their sale, and it was only by the care and discretion exercised by the chemist that these were not abused oftener than they were. He recommended greater combination amongst chemists, and that they should be careful in the choice of men to represent them in the Council of the Pharmaceutical Society. Titles should be protected as far as possible, and members of the Society should certainly be styled "pharmaceutical chemists." When the Act was passed the three examinations were supposed to be for apprentices, assistants, and masters, but this gradually gave place practically to two, and the title of pharmaceutical chemist would make a distinction to the public that the mere name of chemist failed to do. In responding to the toast, Mr. Councillor John Laurie (President of the Association) said there was no doubt that the men in that room had gratuitously prevented many a person from being poisoned and stopped many a murder. He did not think much benefit would accrue to chemists by additions to the Poisons Schedule, nor did he think it desirable to alter the titles—even the title of "chemist and druggist" was good enough if it was confined to qualified men. He had made the proposition regarding the title of "pharmaceutical chemist" referred to by Mr. Taylor, but he questioned whether, such a thing would be wise to-day. He remembered a proposal to give qualified men the title of "pharmist," and if all chemists had the title of "pharmaceutical chemist" it would be necessary to create a new honours title. He concluded with an appeal for union and allegiance to the Society.

"The Blackpool and Fylde Chemists' Association" was proposed by Mr. F. D. Crossley, who spoke of the friendly feelings existing between chemists of the town and district, but advocated a better attendance at the monthly meetings of the Association. Mr. Pilkington Sargeant also spoke to the toast, and contributed an earnest commentary on the difficulties of their pharmaceutical education. In reply, the Vice-Chairman (Mr. J. Sankey), who is also the Hon. Secretary, gave a *résumé* of the work of the Association. He pointed out that during the session he had corresponded with Parliamentary candidates and had secured promises from them of support for the Society. On the representation of the Association, the Technical Instruction Committee had arranged for the teaching of elementary chemistry in a large and handsomely equipped laboratory, where he urged all chemists to send their apprentices. After referring to the P.A.T.A. Convention, and paying tribute to the statesmanlike capabilities of Mr. Glyn-Jones, Mr. Sankey deprecated leaving the work of the Association to a few officials and members of the Association—all should take a share in the management. The "Visitors" and "Artistes" were enthusiastically toasted and thanked by Messrs. Boothroyd and Mayson, and Messrs. Wellings and Robert Hall responded.

The musical and artistic portion of the proceedings were of a high order. Mr. J. H. Taylor, of St. Anne's, gave a song, and a popular local tenor (Mr. Robt. Hull) contributed several much-appreciated items. The humorous vocalisation of Mr. Arbuckle was an unexpected and much-prized feature of the entertainment, to which Mr. Crossley and Mr. Lofthouse, of Fleetwood, also contributed.

DINERS ON TEESIDE.

The annual dinner of the Teesside Chemists' Association was held at the Corporation Hotel, Middlesbrough, on January 14, Mr. W. R. Brackenbury (President of the Association) in the chair, supported by Colonel S. A. Sadler, M.P., Alderman Harrison (Sunderland), Mr. G. F. Merson, F.C.S. (Newcastle), and about fifty others.

After an excellent dinner and the loyal and patriotic toasts had been honoured, Mr. H. Middleton-Taylor submitted "The Pharmaceutical Society." There was no doubt, he said, it had many failings, but during the last few years it

had done good service for the chemists of this country, especially in regard to the education of apprentices. He was sorry that the Society should be so deficient in membership. This greatly increased the difficulties of their Parliamentary work, but if the Society were as well represented by members as at Middlesbrough and Stockton there would be less reason to grumble. With respect to the Poisons Commission, he hoped chemists would obtain a complete monopoly of the sale of poisons. It was time they had a monopoly of something. (Laughter and applause.)

Alderman Harrison responded to the toast. "Never in my most sanguine moments," he said, "did I ever claim that the Pharmaceutical Society is perfect." But, he contended, no body ever did the work entrusted to its care with greater vigilance, activity, and earnestness than does the Council of the Society. He felt one tinge of regret—and in this Mr. Taylor had anticipated him—the comparative paucity of members. He was not there to plead for guineas, but asked for an increased membership in order to give the Society increased political power. They would have to go very soon to the House of Commons to present their Bill, and they might probably be told that they only represented a fourth of the trade. He hoped they would receive the support of Colonel Sadler, M.P., who, he knew, had a warm heart towards them. Dealing with the working of the Society, Alderman Harrison said that whenever the Government required to make regulations for the conduct of pharmacy in our Colonial Empire the first body they approached was the Pharmaceutical Society of Great Britain. Whenever in any part of the world it was intended to secure compulsory pharmaceutical education and examination, and when any scheme was submitted to the Colonial Office, it was at once sent on to the Pharmaceutical Council for its opinion. Nothing was ever done by the Government with regard to the work of pharmacy without consulting the Council. But while they had the complete confidence of the Government Departments, they were weak when the exercise of political strength was required. In the promotion of education, the Pharmaceutical Society, he thought, had done its duty. Chemists had felt for a considerable time great disadvantages in conducting their businesses. Through an oversight in the drafting of the Pharmacy Act of 1868 a large amount of trading was being carried on in their midst which, if not unlawful, was contrary to the spirit of the law. (Hear, hear.) An agitation was going on to urge the Pharmaceutical Society to bring a test-case on the titles question. "I tell you deliberately," declared the Alderman, "we have no case whatever to go into court with. It has been decided in the highest court in the country—the House of Lords—that a person who is registered under the Companies Acts can use your title as freely as you can use it yourselves." To take a test-case into court would be simply a waste of powder and shot. A better way would be to let them combine together, bring their united energy and intelligence to bear upon the matter, rally round the Council, and endeavour to bring about an alteration of the law which would make it impossible for such a state of things to exist. The Bill drafted some years ago to deal with this matter had to be abandoned because of the appointment of a special committee to deal with the sale of poisons. Circumstances had taken place which afforded certain indications as to the lines on which the report of the committee would be drawn. Great vigilance and watchfulness would be exercised when that report came before the House of Commons, and if the proposed legislation be of a retrogressive character, or proposals set up which were inimical to the public and chemists' interests, then the Society will offer a strenuous opposition. The potent drugs now used for medicinal purposes made it more imperative than ever that those who handle them should be properly trained, and if the public could only be made to realise the tremendous responsibilities placed in the hands of chemists, they would say as one man that what was asked for by the trade ought to be conceded. (Applause.) He contended that they had a right to expect that whatever new legislation should be submitted there should be no curtailment of their privileges, but of still further extension of them. They would, however, he believed, never have a fair chance of having their case fairly put until they got one of their own rank to take his place on the floor of the House of Commons. (Applause.) Alderman Harrison concluded

with a eulogy of the good work done by the Benevolent Fund.

Mr. G. F. Merson (President of the Newcastle Chemists' Association) proposed "The Teesside Chemists' Association," which is, he said, one of the youngest societies in the country, but by no means one of the least energetic. The President suitably replied. Mr. W. Finlayson toasted "The Visitors," and Mr. W. S. Glyn-Jones and Dr. Knott responded.

During the evening an enjoyable musical programme was rendered.

THE CHEMISTS' BALL.

The thirty-seventh Chemists' Annual Ball took place on Wednesday evening, January 21, in accordance with recent precedents, at the Whitehall Rooms, Hôtel Métropole. Thirty-seven is evidently considered to be irresponsible youth, for the dance was one of the most brilliant on record from the point of view of numbers and enthusiasm. The ladies in their robes of varied hue, with "wanton wiles and wreathed smiles," converted a duty into a pleasure, and made dancing a desire and not a mere engagement. Hebe presided over the "light fantastic toe," and gave it an assiduity and an alertness which led us to the late hours of the early morning. We missed some old faces which had become familiar to us across the table or *à vis-à-vis* in the Lancers, but their places were taken by fresh *alumni*, who smiled for all the world as if this particular dance were but the initiation to a life of beer and skittles. There was the inevitable supper, at which Mr. Carteighe, as inevitable as the supper, in the absence of the President of the Pharmaceutical Society, pointed out that the interlude afforded them the threefold opportunity of drinking success to the Chemists' Ball, of drinking happiness to the ladies, and of drinking success to the calling. The triplicate toast was honoured as these toasts should be, and Mr. Carteighe's eloquence was such that it needed considerable persuasion to the masculine element to resume the gymnastic performance. Every credit is due to Mr. A. J. Bullen Cooper for the excellent organisation of the festival. If his speech was not received with the decorum which one might have wished, it was due to the fact that the toast of the ladies rendered the men loquacious—a sign of the times. The pharmaceutical world was well represented, and it is a matter of common consent that the dance was one of the most successful of the series.

New Books.

Bassett, H. H. *The Investor's Blue-book for 1903*. 7½ × 4½. Pp. 272. 1s. 8d. (linen), 2s. 3d. (cloth boards). (*Investor's Chronicle*, Tower Chambers, London Wall, E.C.) [The object of this book is to help small investors to distinguish between gilt-edged, ordinary commercial, fair industrial, indifferent and gambling speculations. It is an interesting book, and seems to furnish a satisfactory reply to those investors who ask for "safe 5-per-cent. investments." The industrial companies mentioned include many which are connected with the drug-trade.]

Clarke, J. H. *Cold-catching, Cold-preventing, Cold-curing, with a Section on Influenza*. Pp. 136. 1s. (J. Epps & Co.)

Collinson, F. W. *Operation-nursing Instructions*. 1s. per dozen; 7s. 6d. per 100. (John Wright & Co., Bristol.) [This is a leaflet which contains instructions to the nurse for preparing the room and articles required in operations. There are also instructions as to the preparation and care of the patient, which can be detached if the doctor prefers to give verbal directions.]

Duckworth, L. *The Consumer's Handbook of the Law Relating to Gas, Water, and Electric Lighting*. 2nd ed. Crown 8vo. Limp, 1s. 6d. net. (E. Wilson.)

Gresswell, G. C. *Veterinary Pharmacopœia and Manual of Comparative Therapy; with Physiological Actions of Medicines by Albert Gresswell*. 8½ × 5½. Pp. 472. 12s. 6d. net. (Baillière.)

Hayes, M. H. *Veterinary Notes for Horse-owners*. 8½ × 5½. Pp. 852. 15s. net. (Hurst.)

Latham, A. *Diagnosis and Modern Treatment of Pulmonary Consumption*. 8½ × 5½. Pp. 222. 5s. net. (Baillière.)

Wright, A. C. *The Analysis of Oils and Allied Substances*. 8½ × 5½. Pp. xi + 241. 9s. (Crosby Lockwood & Son.)

Winter Session.

Royal Institution.

ON the first Friday evening of the session—January 16—Professor Dewar gave a discourse on

LOW-TEMPERATURE INVESTIGATION.

Sir Jas. Crichton Browne was in the chair. The attendance was good, but the cold weather rather prevented the lecture-theatre from being as crowded as it usually is on first nights. Professor DEWAR began with the remark that as an investigation on any new subject proceeds the research tends more and more to detail and the exhaustive examination of a limited field. It has taken about three hundred years to form our present conception of material and matter, and it is not improbable that it will take at least thirty or forty years to get a good idea of the problems suggested by low-temperature investigation. The lecturer then went on to consider the question of specific volume at different temperatures, and by means of models suggested the relative volumes of a solid and a gas. Three models were used to represent the relative bulk of various solids—the smallest that of the diamond, and the largest cesium. The sp. gr. of liquid hydrogen is the lowest of any known liquid—a fragment of pithwood just floats on the hydrogen, but cork sinks. Additional interest was given to the experiments showing these phenomena from the fact that the liquid hydrogen used was made in front of the audience. The next experiment was one devised by Dalton and was a favourite with Playfair. It consisted in adding anhydrous and hydrated sodium carbonate to equal volumes of water. The result in the case of the solution of the anhydrous salt was that scarcely any increase in volume took place, whilst there was a large increase in the case of the hydrated salt. Dalton and Playfair spent much time in a fruitless endeavour to find a law correlating the volume of the water of crystallisation in salts with that of ice. Professor Dewar then went on to discuss the question of the density of ice at low temperatures. As is well known, the maximum density of water is attained at about 4° above zero (C.). Would intense cold ever make ice as dense as water? Lord Kelvin had proved that the freezing-point of water was lowered by pressure, and the question arose as to what pressure was required to liquefy ice at, say, the temperature of liquid air. Recent researches have shown that at a pressure of 3,000 atmospheres an ice denser than water is formed, and that below -22° C. no amount of pressure will produce a liquid. To make this fact clearer, a block of ice which was being cut by the pressure of a wire was projected on the screen. When the wire had cut its way half through one end of the wire was cooled by liquid air, with the result that the wire practically stopped still, even with increased pressure. Incidentally it was noted that under pressure hydrated salts, such as alum and ferrocyanide of iron, readily cohere if moistened. Solid carbon dioxide forms a clear block like ice under pressure—a fact which illustrated the next point touched upon: that the cohesive power of substances increases at low temperatures. A piece of steel was shown upon which a pressure of 20,000 atmospheres had been exerted at the temperature of liquid air without any bad result, but when a similar pressure was exerted at the ordinary temperature the steel at once broke into two pieces. An experiment was shown with guttapercha tissue on the end of a barometer-tube. The guttapercha was cooled with liquid air, and stood perfectly a much greater pressure without cracking. Professor Dewar then showed the experiment of plunging a Nerst electric lamp into liquid air, which did not affect its burning-properties. There has been some discussion as to the cause of the light in this lamp, which is stated not to burn in a vacuum, and it has been ascribed to a combination of electrolysis and oxidation. But it burnt in liquid oxygen, with the production of ozone, and equally well in liquid nitrogen—facts which seemed to put out of court the oxidation theories of some distinguished electricians. The lecturer next showed a vacuum tube of quartz which he had had made in Germany. Experiments with the new tube are expected to yield interesting results, as quartz is transparent to ultra-violet light, and will be of great

advantage in investigating many electric-spark phenomena. The final experiment was a very pretty one, showing how low temperature affects the exhaustion of a vacuum tube. A long tube, exhausted to the stræ stage, was sparked, and at the same time swabbed with liquid air, when the exhaustion passed through the violet to the apple-green stage, making "as perfect a vacuum as Sir William Crookes ever produced" in a few seconds.

Chemical Society.

THE first post-Christmas meeting of the Society was held on Wednesday afternoon, January 21, when the chair was taken by the PRESIDENT (Professor Emerson Reynolds, F.R.S.), who also contributed the first paper on

RESEARCHES ON SILICON-COMPOUNDS.

This detailed the results of some experiments on the curious substance described by the Professor two years ago under the name of silicophenylamide. Like its carbon analogue, this body reacts with isothiocyanic esters (mustard oils) to form what may be called a siliconphenyldimide with the splitting off of two molecules of aniline, but it also has the property of forming at least two molecular-compounds with the mustard oils, which on further treatment furnish the derivatives already indicated. The President showed specimens of the peculiar viscous addition compounds which he had obtained and of definite crystalline products. The next papers were contributed by Professor DOBBIE and Dr. LAUDER. They gave an account of

THE ABSORPTION-SPECTRA OF SOME ALKALOIDS.

About twenty years ago Professor Hartley pointed out that a very large number of carbon-compounds have the property of absorbing in a specific manner ultra-violet radiation. This absorption is merely general in the case of saturated compounds—i.e., paraffins and their derivatives, cyclo-methylenes, &c.—whilst it is both general and selective for unsaturated substances. To the latter class belong most of the alkaloids, and the authors showed that many of these give ultra-violet absorption-spectra capable of correlation with their constitution, and by this means they have obtained further evidence of the close relationship of berberine and corydaline with the alkaloids of the papaverine group, and have also investigated a number of other interesting points in the chemistry of alkaloids, such as the similarity in constitution of laudanose and meconidine, bulbocapnine and papaverine, quinine and hydro-quinine, and they suggest that this method might be applied generally to the determination of the relationship of little-known alkaloids. Most of the three-quarters of an hour which Professor Dobbie occupied was taken up by a screen-demonstration of the various spectra, which included those of hydrastine and its derivatives, besides those mentioned, and as these were accompanied by the graphic formulæ, the Fellows were able to see how, e.g., the breaking of a closed chain makes a substantial difference in the absorption-spectrum.

In the short discussion which followed, Dr. JOWETT asked if such alkaloids as atropine and hyoscyamine had been tried; and Professor DUNSTAN congratulated the authors on their having rendered available a weapon, hitherto regarded with some scepticism by chemists, which would appear to have many possible applications in this branch of research.

These were the only papers read. In one by Professor Thorpe and Mr. J. Holmes a method was described of estimating ethyl alcohol in essences and medicinal preparations depending upon the removal of essential oils by means of petroleum ether. Earlier in the evening Professor DUNSTAN announced that a communication had been received from Professor Meyerhoffer, of Leipzig, stating that a revision of Landolt and Bernstein's chemical-tables was now in progress, and that he would be glad to have from anyone interested suggestions as to the improvement or correction of this useful volume.

London Chemists' Association.

THE Southern branch met at the Horns, Kennington, on Wednesday afternoon to hear a paper by Mr. F. W. Trueman

and have a friendly chat afterwards. It was one of those pleasant little gatherings which the drug-trade has lately succeeded in learning "the know how." Mr. Truman's paper was on

SOME NEGLECTED PROFITS.

The point of it is the counterpart of that of Mr. J. H. Thomson's Conference paper on making one's own galenicals, but in the present case the wisdom flows from a chemist in the Old Kent Road, which is not precisely akin to a Dundee suburb. We extract a few of the more cogent passages from the paper:—

We know something of the former profits of our trade, and deploring—as we must all do—the great decrease that has taken place in them, it behoves us to question ourselves if that decrease is not in a great measure due to our own inaction and want of energy. We spend a good deal of our time complaining of limited companies and the unreasonable demands of the public, but a little self cross-examination must make us conscious that in many respects we are ourselves responsible for diminution of those profits we have a right to expect as members of a useful and highly educated body. Chemists have many spare half-hours which they can profitably utilise in making B.P. and other preparations. Tinctures require little attention, and can be made quite satisfactorily even without the possession of an hydraulic press. The saving in making one's own tinctures is not so great as in the preparation of other classes of galenicals, but it is considerable, and we obtain increased confidence in their use. Syrups and ointments give a very large margin of profit. The manufacture of them is easy and interesting. Yet how few chemists are there who do not buy them. The extra profit to be obtained by making one's own pills is the greatest. Pills appear to be purchased with the idea that pearl-coating can only be satisfactorily done with expensive apparatus and steam power. With a little application and practice it will be found easy to pearl-coat quantities of a pound or two of pills. All that is necessary is to make your pills round them, and keep them until sufficiently hardened. With most formulæ it is not necessary to varnish them. Use a very weak solution of gum arabic, small quantities at a time of French chalk, and rotation in a tin. (I myself use an old coffee-pot.) One pound of pills when coated will weigh about 6 oz. more. *Verb. sap. sat.* There seems to be a great antipathy to making ointments at home, one objection being that they have to be stirred until cold. In some cases the B.P. omits stirring. In the case of ung. resinæ it should be allowed to cool by itself. Ung. hydrarg. is in demand in one locality more than another, and at the present time provides some profit to the lawyers. There is a notion that it requires much time to make this ointment. Twenty minutes is, in reality, enough to make the B.P. quantity of 2 lbs. 1 oz. The first and most important item of the formula is a moist clammy day, such as our climate gives us frequently. On such a day, if the mercury be first rubbed with 1 oz. of lard, and more be added until 4 oz. has been used, twenty minutes' vigorous trituration at most will effectually "kill" the mercury. The cost will be at least two-thirds list-prices.

Syrups are all profitable to make. Syr. rhamni, even if the succus is bought, does not cost more than 5d. per lb. For syr. ferri iodid. I recommend the old-fashioned method of rubbing down the necessary quantity of iodine with cleaned iron filings, allowing them to stand for some little time, adding water, then adding the filtered solution to the syrup. The process may not be sufficiently complicated to commend it to the compilers of the B.P., but it has the merit of being easy and practical, and is economical. Syr. papaveris is in large demand. Make it yourselves from the extract; its cost will be about the same as syr. simplex; its effect quite as good.

We all sell more or less of quinine-wine. If you make your own orange-wine from Seville oranges and sugar, as it should be made, the cost of your quinine-wine, of very superior quality, works out at about 4s. 6d. per dozen wine-bottles. Compound liquorice-powder made at home costs less than most firms sell it at; and if you grind and sift your own fennel, and use it freshly ground, the stomachic effect and aroma of the finished powder are so vastly superior that customers are willing to pay an increased price for it. If a system of co-operation amongst ourselves could be initiated for the mutual exchange of our home-made products, a greater pecuniary gain would result.

As about thirty members attended the meeting, a brisk and very practical discussion followed the reading of the paper, and a vote of thanks was cordially awarded to Mr. Truman. Four new members were elected.

Chemists' Assistants' Association.

A MEETING was held at 73 Newman Street, W., on January 15, Mr. A. Latreille (President) in the chair.

Mr. W. LAMOND HOWIE, F.R.S.E., F.C.S., gave a lecture on

FIVE EUROPEAN CAPITALS,

or "From Berlin to Buda-Pesth." The lecture was supplemented by excellent slides, mostly from photos taken by Mr. Howie during the tour. Some of the slides were beautifully coloured by Dr. Joly's process. The first city described was Berlin, rich in public buildings and statues which admirably lend themselves to the photographer's art. Dresden, the picturesque capital of Saxony, was next described, and the scenery of the Elbe yielded some beautiful pictures. Prague, Passau, and Linz provided topics and scenes of interest, and a two days' journey on the Danube brought the lecturer to Vienna. Hungary, with its capital Buda-Pesth, the "most picturesque capital in Europe," finished the tour. Here the West begins to meet the "purple East," and a description of some of the national costumes seen at the Millennial Exhibition showed them to be a curious blending of the two.

A cordial vote of thanks to Mr. Howie for a pleasant evening was unanimously passed, and after a short discussion the proceedings terminated.

Poor-law Dispensers' Association.

A MEETING of this Association was held at Surrey House, Thames Embankment, W.C., on January 16, Mr. M. G. Smith (Lewisham Infirmary), President, in the chair. There was a good attendance of members. The HON. SECRETARY (Mr. H. D. Kelf, Southwark Infirmary), in a brief report of the work of the committee, stated that the South-Eastern district of London—including Camberwell, Lambeth, Lewisham, Greenwich, Southwark, St. Olave's, and Woolwich—was now fully represented, as nearly all the Poor-law dispensers in those Unions had become members of this Association. The PRESIDENT, in the course of a short address, dealt with the work of the Association since its reconstitution and with plans for the future. Although no actual results had yet been achieved, the reformation of the Association had entailed a great amount of work on the part of the Hon. Secretary and committee, and this was done with the object of bettering the status and conditions of service of Poor-law dispensers. Several schemes for the formation of a defence fund have been considered, and have occupied much of the committee's time, but as yet they had not been able to decide upon a workable scheme without greatly increasing the subscription. The committee attendances have been excellent, and he urged individual members of the Association to show their appreciation of the committee's work by attending in force at the general meetings. Poor-law dispensers should receive a greater remuneration than they do at present. The fact is acknowledged throughout the service, and the figures published by THE CHEMIST AND DRUGGIST lately in connection with medical relief support the fact that dispensers have not benefited as regards salary proportionately with their brother officers in the clerical and other departments of Poor-law service. On the other hand, the dispensers' work has in many cases increased, and their duties have been considerably added to. When the office of dispenser was created, the idea was held that it would be filled by someone studying medicine, and who did not intend to become a permanent officer. This accounts for the conditions of service and salary remaining practically the same to this day. To remedy this state of things is the object of the Association, and the President pleaded for an increased membership.

School of Pharmacy Students' Association.

At a meeting held at 17 Bloomsbury Square on Friday, January 16, Mr. Lenton in the chair, Professor ELWIN delivered an interesting address on "The Production and Management of the Voice." There was a large and appreciative audience. In the course of his address he said very few people know how to speak properly. If they would only learn how to speak before they learnt to sing, we should be spared a great deal of unnecessary pain; but most people speak as their parents do. He illustrated the differences between the various voices—chest, throat, head, and mixed—and also gave the ordinary manners in which public speakers, clergymen, barristers, and army officers speak in

their respective duties, and contrasted these methods with the correct way. At the conclusion of the address a hearty vote of thanks, proposed by Mr. PATERSON and seconded by Mr. GILMOUR, was accorded to Professor Elwin.

Sheffield Pharmaceutical and Chemical Society.

A MEETING of this Society was held on January 21, Mr. John Austen (President) in the chair, when Mr. J. GILBERT JACKSON read an instructive paper on

PHOTOGRAPHIC CHEMISTRY.

He said the first impulse of an amateur on seeing the directions for compounding a developer and studying the weights and measures mentioned is to go to a photographic chemist for a bottle of a ready-made developer. With such a preparation doubtless good results were obtainable, but Mr. Jackson objected to the principle of using secret developers. The amateur should instead obtain scales and weights, and endeavour to master the use of the various ingredients, and learn how to modify his solutions for special requirements.

DEVELOPING.

It is important for the amateur to take notes when exposing his plates, so that he can amend his developer according to the conditions under which the exposure was made. As Sir Wm. Abney expresses it, "the development of a dry plate is in reality an art and a science combined. The art consists in getting the proper gradation, and the science in mixing the solutions to obtain it."

Mr. Jackson next alluded to the confusion which results from the use of both apothecaries' and avoirdupois weights in photography. This, he said, will cease when the metric system is in general use. In making the developer the character of the subject, the exposure, the colour, and general printing qualities of the negative have to be considered—matters which affect the proportion of alkali, bromide, and the kind of developing-agent. After referring to the vexed question as to the state in which the silver salts exist in the film before and after exposure, the fact was brought out that developers are reducing-agents, eager for oxygen, which complete the chemical action begun by the exposure to light. When acid is used with the reducing-agent as a preservative the alkaline solution must be more than sufficient to neutralise it, because it is necessary to have excess of alkali present to accelerate development. Sodium sulphite prevents staining, but some photographers claim to obtain better negatives by keeping the quantity of sulphite low. Stains are more prevalent when the plates are insufficiently washed between developing and fixing, and it is a good plan to put the plate in a clearing solution of sodium sulphite.

Next the process of fixing was explained, and the use of hypo-removers and acid fixing-baths. In the latter the essential part is uncombined sulphurous acid, which is the stain-destroying agent.

TONING.

Toning the print involves several interesting chemical-reactions. The process is really gold-plating (when a gold salt is used), a particle of metallic gold being deposited on each particle of silver in the print. Combined toning and fixing baths are sometimes blamed for want of permanence, but prints made with such solutions keep good for years, if proper precautions are taken in washing the print afterwards. A combined bath, which gives a fine range of tones, can be made without gold from the following recipe:—

Sodium hyposulphite	...	...	3ij.
Lead acetate	...	...	3j.
Alum	...	...	3ss.
Water	...	...	3xvj.

Dissolve the salts in the order written, let the solution stand for twenty-four hours, and filter.

A plan of replacing the silver image in a bromide print by platinum, with a view to getting a more pleasing effect, was put forward, a bath made as follows yielding warm sepia tones:—

Potassium chloroplatinite	...	...	gr. j.
Mercuric chloride	...	...	gr. j.
Citric acid	...	...	gr. ix.
Water	...	...	3j.

INTENSIFYING AND REDUCING.

No variation of a developer can produce as good a negative as if it had been originally correctly exposed, but the photographer can effect great changes by means of intensifiers and reducers. Mercuric intensification has much to recommend it on account of its simplicity, but it is important to ensure that the plate is free from hypo, or staining results. Mr. Jackson at some length explained that in intensification mercuric chloride combines with the metallic silver of a negative, and forms a new compound with chemical and physical properties different from what a mixture would possess. Reduction is another interesting chemical process, the two methods by Farmer's solution and ammonium persulphate being considered, the remarkable power of the latter in reducing only the dense parts of a negative giving a power in the hands of the photographer which has long been desired.

A vote of thanks was given to Mr. Jackson for his paper, and the meeting closed.

North Staffordshire Chemists' Association.

A MEETING of this Association was held on January 15 at the Copeland Arms Hotel, Stoke-on-Trent, when Mr. A. Johnston, of the P.A.T.A., gave an address on the claims and advantages of the P.A.T.A., the Chemists' Defence Association, and the Drug Trade Appeal Fund.

Mr. T. C. Cornwell (Hanley), Vice-President, occupied the chair.

THE CONVENTION.

At the suggestion of Mr. JOHNSTON the following resolution was passed, and when signed by the local chemists is to be sent to those proprietors of proprietaries who have not yet placed their goods on the protected list:—

The North Staffordshire Chemists' Association regret that you were not represented at the recent Convention between delegates from local associations of chemists and owners of proprietary articles. The members of this Association, and other chemists, whose signatures are subscribed hereto, believe that no satisfactory business-relations can exist between them and your firm until you see your way to guarantee them an adequate profit on your goods. They respectfully suggest that you join the P.A.T.A., and protect the prices of your articles through that Association.

THE CHEMISTS' DEFENCE ASSOCIATION.

Mr. JOHNSTON then spoke of the advantages and uses of the Chemists' Defence Association, explaining the working and the application of the rules, and showing that the Association was not formed to bolster up fraud and dishonesty, but to defend honest men against unjust prosecution and blackmail, and in the case of technical error its principal object was to be one of mutual insurance.

After a few questions had been satisfactorily answered and several members had spoken of the good done by the C.D.A. and P.A.T.A., resolutions of approval were passed. It was also resolved to send a protest to the Staffordshire County Council, pointing out the unwisdom of the recent mercury-ointment prosecutions and giving the reasons for so doing. Finally, Mr. Johnston received a vote of thanks for his address.

Wakefield Chemists' Association.

THE annual meeting of this Association was held on January 20 at the Victoria Temperance Hotel, the President (Mr. W. Pollard) occupying the chair. There were also present Mr. J. L. Chaplin, Mr. C. W. Duffin, Mr. F. C. Whaley, and Mr. J. Judge (Hon. Secretary).

Mr. JUDGE submitted the first

ANNUAL REPORT AND BALANCE-SHEET,

in which it was stated that the Association had had a satisfactory first year, considering the small number of chemists available in the district for membership. The number of members was eighteen, and the average attendance at the nine meetings which had been held since the inaugural dinner had been about eight. The accounts showed a credit balance of 17. 7s.

The PRESIDENT, commenting on the balance-sheet, said

the formation of an association could not have done them any harm at any rate, and whilst they had gained something from the social element, they had also, no doubt, learned a little in regard to matters pharmaceutical. At least, they knew their position better to-day than they did twelve months ago, and if there was a certain amount of apathy among them, they could, at any rate, congratulate themselves that that was not the fault of those who had joined the Association and who attended the meetings. He thought something might be done in the regulation of prices.

The reports were adopted.

THE ELECTION OF OFFICERS

then took place, and resulted as follows: President, Mr. W. Pollard; Vice-President, Mr. Hodgson; Committee, Messrs. Chaplin, Duffin, Green, and Whaley; Hon. Secretary, Mr. J. Judge.

It was decided to hold the second annual dinner in March.

Halifax Chemists' Association.

The monthly meeting of this Association was held on January 20 at the Old Cock Hotel. Mr. Gibson Dixon (the President) being in the chair. There was a capital attendance.

It was decided to hold the annual dinner on Thursday, February 19. An interesting discussion followed on

CHEMISTS AND THEIR RELATIONS TO LOCAL AND NATIONAL ASSOCIATIONS.

Mr. WADDINGTON (Bradford) introduced the subject, and Mr. SWIRE opened the discussion, urging that it was to the interest of everyone to join the Pharmaceutical Society. He was sorry that most chemists in the United Kingdom had not yet seen fit to join. Again and again he had seen the practical necessity for being connected with such an Association. A combined body of chemists would be enabled to go to Parliament. At present they lacked the necessary influence.

Mr. CLEMENT FIELDING made some practical suggestions with regard to representation on the Council. The Pharmaceutical Society was their most important organisation, and the one thing they should strive to do was to send to the Council men of broad views, and not men selected because of the fact that their fathers were the fathers of pharmacy. (Hear, hear.)

Mr. TIFFANY said the necessity for organisation was manifest, and he looked for beneficent work from the Pharmaceutical Society in grappling with the stores. (Hear, hear.)

Mr. BLACK (Hon. Secretary), Mr. HAIGH, Mr. W. R. FIELDING, Mr. THOMPSON, and the PRESIDENT also joined in the discussion, and Mr. WADDINGTON replied and was thanked for his attendance.

Edinburgh Chemists', Assistants', and Apprentices' Association.

A MEETING of this Association was held on January 14, at 36 York Place, Edinburgh, Mr. J. W. Plenderleith in the chair. It was an "apprentices' evening," the first communication being by Mr. GEO. STEVEN, on "Alcohol: its Preparation, Uses, and Constitution."

AN APPRENTICE'S VIEWS.

Mr. A. B. GAIN then gave his ideas of pharmacy from the point of view of an apprentice. He thought the present dearth of apprentices is really a blessing in disguise, as the best masters will still be able to get apprentices. The scarcity is due to the facts that the calling does not possess sufficient fascination, the hours of labour are too long, and there is not sufficient time allowed to study for the examinations. These are the views commonly expressed; but Mr. Gairn believes that pharmacy is a good thing. Several reforms were suggested by the speaker—the exclusion of women from pharmacy, removal of the stores, the establishment of schools of pharmacy throughout the country, and the adoption of the metric system. The removal of the stores would, Mr. Gairn confessed, require some strategy. He would require every candidate for the Minor examination

to sign an undertaking not to accept an appointment with a limited company store, which would "effectually wipe out the stores." The schools of pharmacy would be for the purpose of training young men in their business, and Mr. Gairn would raise the standard of the Minor, which was now "quite ridiculous," when compared with that of the Preliminary examination.

Votes of thanks to the authors of the papers concluded the meeting.

Newcastle-upon-Tyne Chemists' Association.

THIS Association held a meeting in the Hôtel Métropole on January 14. Mr. R. Wright presided.

Mr. Carr, Washington, co. Durham, and Mr. Roper, Newcastle, were elected members of the Association.

Mr. JOHN GIBSON, F.C.S., Hexham, then gave an address, entitled

THE CHEMIST IN THE EYE OF THE PUBLIC,

in which he argued that the chemist is more looked up to now by the people than ever he was in the past, and that the higher educational status of the chemist of to-day is appreciated by the people. He thought that whilst vast sums of money were wasted by educational bodies in imparting a knowledge of shorthand, building construction, and other arts and sciences to people who would never have a use for the knowledge, it seemed a pity that a little of this money could not be used in the education of the embryo chemist. In the discussion which followed the CHAIRMAN said he did not agree with Mr. Gibson that the public appreciates the higher education of the chemist, and Mr. CLAGUE urged that chemists should endeavour to get representatives on educational bodies. After further discussion the author later replied to the points that had been raised, and was given a vote of thanks.

Northampton Chemists' Association.

THE monthly meeting of this Association was held at the Black Boy Hotel, Wood Hill, Northampton, on January 16. Mr. W. D. Mayger presided over a small attendance consisting of Mr. F. Cowdery (Hon. Secretary), Mr. Ingle, Mr. Dennis, Mr. Evan C. Ashford, Mr. Gatehouse, Mr. Gallimore, Mr. F. C. Ashford, and Mr. J. Flinton Harris.

The only business of interest was an address by Mr. INGLE upon

CO-OPERATIVE BUYING.

Mr. Ingle contended that the reason the drug-stores could retail proprietary articles at lower prices than the chemist was that the stores, by buying large quantities of these goods at one time, were able to get more favourable terms from the manufacturers and wholesale houses. If this contention was true, it was quite time, he said, that chemists looked into the matter and discovered how they could buy at "rock-bottom" prices. He suggested that a "Trading Section" of the Association should be formed. Each member of the Section would buy two or more popular proprietary articles direct from the manufacturer, and he would then distribute these among the other members of the Trading Section according to their individual requirements, charging them cost-price, plus only their share of the cost of carriage. No member of the Trading Section would be allowed to make any profit out of the sale of these particular goods to any other member of the Trading Section. This scheme, submitted Mr. Ingle, would work satisfactorily, and it would enable the members of the Trading Section to sell at the same price as the stores. Chemists must sell at store prices or they would surely lose custom. If they could get the public into their shops for proprietary articles, the public, he was sure, would go to them for other articles from which the chemist could extract a legitimate profit. Concluding, he said that the scheme worked well in Bradford and Plymouth. He compared a list of prices at which the Trading Section could purchase large parcels of proprietary articles direct from the manufacturers with a list of similar articles purchased by each chemist from the wholesale chemists as at present. In all cases the difference was 2 per cent.; in some it was as much as 8 per cent. This extra profit, he

urged, might just as well go into the pockets of the retail chemist through the medium of the Trading Section as into the pockets of the wholesale chemist. A short discussion followed, in the course of which divergent views were expressed. A resolution that a committee be appointed to consider the formation of a Trading Section was not recorded, and accordingly fell through. Mr. Ingle was heartily thanked for his interesting paper.

Pharmaceutical Society of Great Britain.

NORTH BRITISH BRANCH.

The third evening meeting of the session was held at 36 York Place, Edinburgh, on January 21, Mr. Peter Boa in the chair. Mr. J. P. GILMOUR read his paper on

SOME OFFICIAL ADAPTATIONS AND ECONOMIES OF B.P. PROCESSES.

Beginning with observations and reflections on products which satisfy the official requirements in a special though not general regard, he mentioned some preparations which should not be used as substitutes for B.P. preparations, these including concentrated infusions, concentrated aromatic waters, and aromatic spirit of ammonia made by solution. Nor could short methods of producing B.P. preparations be tolerated if the final product contained something that the B.P. does not contemplate. Liquor bismuthi by W. Duncan's process was instanced. Where, however, a modification of the B.P. process gave some advantage and the same result, he claimed that it might be adopted, and the following were the instances which he submitted [we abstract these concisely]:—

Mucilag. Acacia.—Run water over the gum in fine muslin for a minute or so, and suspend it in a bag in the requisite amount of water so that the gum is just covered, occasionally raising it as its contents diminish. Solution takes place in a night, and filtration is seldom necessary.

Ext. Cascare Sagrade Liq.—The author's experiments go to prove that if the bark is moistened with the B.P. proportion of water and allowed to macerate for twelve hours the marc is exhausted with from three-fourths to four-fifths of the menstruum otherwise required, and maceration for longer periods results in the bark swelling, and involves additional difficulty in percolation. A douche can with tube and tap, with an adjustment to allow the water to come in drops, is an automatic arrangement for maintaining the stratum of menstruum above the marc.

Ext. Cocae Liq. and Ext. Cinchona Liq.—Mr. John Lothian stated that percolation is tedious and ineffective owing to the excess of menstruum used to macerate. He recommended the U.S.P. process.

Emp. Resina and Emp. Saponis.—Mr. H. Roswell recommended hard soap in powder, resin broken small, and lead-plaster in B.P. proportions, with the use of shrelded hard soap.

Ferri et Ammon. Cit. and Ferri et Quin. Cit.—As a solution of either salt answers for dispensing purposes in nine cases out of ten, conduct the B.P. process to the stage of a liquor of definite and constant strength. The amount of dilute sulphuric acid ordered for dissolving the sulphate of quinine is excessive. About half the official quantity brings the quinine into solution. It is also a mistake to add the precipitated quinine to the warm acid solution of ferric citrate on the water-bath, as the quinine coagulates. The author advocated adding the quinine when the liquor is cold or nearly so. To preserve the solutions, twice as much chloroform as for B.P. aqua should be added.

Glycerinum Acidi Borici.—Commercial samples deposit heavily; some consist of a copious sediment and a syrupy supernatant layer. Acting on the suggestion of Mr. A. McKellar, the author concentrated the liquid resulting from the solution of the boric acid in the glycerin by boiling. He described the process, and said that at 115° C. the flame of a Bunsen, through which the vapour passed, acquired a vivid greenish tinge, but although as concentration proceeded, the temperature rose till towards the close it stood at 150° C., there was no apparent increase in the intensity of the colouration. He got no definite information about the volatility of glyceryl borate, but one would hardly expect it to be so volatile as ethyl borate. He suggested that if chemical combination did not take place all at once, it might be free boric acid that was given off. Otherwise there should be a sensible increase in the dissipation of glyceryl borate as the temperature rose. Judged by the rough test of hydrolysis, the product of the modified process seemed to yield as copious a deposit of boric acid as the official article, and medical men who had tried it reported that, as far as they could judge, it was therapeutically most satisfactory as a throat paint diluted with glycerin.

Glycerinum Boracis and Glycerinum Acidi Tannici.—Instead of triturating the solid with glycerin it suffices to rub it down into

a smooth paste, thin with more glycerin, reserve another portion to wash out the mortar, and set the whole aside in a bottle. Solution will be completed in a day or two.

Glycerinum Acidi Carbolici.—It is a good plan to warm the mortar with boiling water, and rub down the phenol till it becomes pasty, then add a little glycerin, and triturate, when solution takes place almost immediately.

Likimentum Camphora.—Heat three-fourths of the oil to 100° C.; place the camphor in a mortar, and triturate into a fine paste with a portion of the cold oil, thin with the rest, and transfer to a warmed bottle. Wash out the mortar with a little of the hot oil; then pour that and the rest of the hot oil into the bottle, and shake. The camphor dissolves in one or two minutes.

Liquores.—There is some difficulty in determining the neutralisation-point in the interaction between the acid and alkali of liq. ammonii acetatis, owing to the presence of carbonic acid in the solution. A direct and speedy method is to use tincture of cochineal as an indicator. The author called attention to the ingenious expedient of making fluid magnesia in a gazogene. He has proved its utility and efficacy. For a 5-pint gazogene three ordinary charges are ample, and these may quite safely all be put in at once. A good quantity of the gas evolved combined at once with the magnesium oxycarbonate placed in the lower bulb, and if the pressure rises above a certain point the action ceases. The author uses as charges citric acid and potassium bicarbonate, and reserves the resulting solution of potassium citrate, after driving off the carbonic acid and neutralising, for dispensing purposes. Liq. magnes. carb. prepared under these conditions is of full strength, and keeps as well as any other fluid magnesia.

Liq. Plumbi Subacet. Fortis, obtained by Squire's method, has generally a higher sp. gr. than the B.P. product. A recently prepared sample was sp. gr. 1.2845 (B.P., 1.275), and contained 27.8 grams PbO.Pb(C₂H₃O₂)₂ in 100 grams.

Syrupus Calcis Lactophosphatis.—Rub up the chalk with half the water ordered for the dilution of the lactic acid. Add this milk to the diluted acid in the receiver of a percolator or other similar wide-mouthed vessel, shaking after each addition until a clear solution is obtained. If the official directions are observed, the calcium lactate with a core of undecomposed carbonate floats in lumps on the surface of the dilute acid and takes much longer to dissolve. The sugar (cut loaf) is best dissolved by percolation.

Syrupus Codeina Phosphatis.—Squire's statement that the quantity of water ordered by the B.P. to dissolve the codeine phosphate is insufficient is correct, but not if heat is used.

Tinctura Aurantii and Tinctura Limonis.—To save alcohol macerate the fresh peel with a small quantity of the menstruum, and dilute as required.

Tinctura Zingiberis Fortis.—Even if the marc be strongly expressed there is considerable loss of alcohol. It is better to displace the excess of alcohol with water.

Unguentum Zinci.—If the B.P. directions be followed literally the ointment is apt to be gritty. The late Mr. A. Kinnimont's method was to levigate the oxide with a weighed quantity of almond oil. The resulting paste was thinned with melted lard, and poured on a muslin strainer, and the mortar cleared out with successive portions of melted lard. This yielded a beautifully smooth and elegant product. The method can still be used with melted lard, in place of oil, and a well-warmed mortar.

Discussion.

Mr. CLAUD HENRY said the subject of the paper was one which he sometimes wondered did not receive the attention of editors and authors, because a very interesting book might be published on it—namely, the production of B.P. preparations in which were embodied many hundreds of suggestions made in the journals and elsewhere. The making of pharmaceutical preparations more economically and quickly than by the B.P. process was quite legitimate so long as the result was correct. He quite agreed with Mr. Gilmour regarding the increasing difficulty of preparing certain preparations of the Pharmacopoeia, such as tincture of opium. He did not know if it was practical—he should think it was—for wholesale houses to dry and powder 14 lbs. or 28 lbs. of opium and give a warranty to the retailer that it contained the proper preparation of morphine from which the retailer could make tincture of correct standard. He suggested another method of making glycerin of tannic acid: it was to place the tannic acid in a funnel lightly stopped with absorbent wool, add the glycerin, stir, and allow to percolate. He had found that method worked pretty well.

Mr. DOTT said the Pharmacopoeia suffered from a great amount of criticism. It was not such a bad book, after all, and he considered it was sometimes rather too much disparaged. It struck him as curious that when some good processes were published in other books, the Editor deliberately seemed sometimes to select the inferior and unsatis-

factory processes. Cochineal was an excellent indicator, and he did not think it was sufficiently used. With regard to the making of syrups containing acid solutions, he thought heat should not be used if it could be avoided. Standard powders could no doubt be prepared in many cases in wholesale houses, and that would simplify the preparation of tinctures and liquid extracts.

Mr. COWIE was of opinion that much might be done to improve the Pharmacopœia by official adaptations. At present they had large quantities in both the metric and the British systems; it would be better to have everything stated in parts. That would reduce the bulk and price of the Pharmacopœia. The whole question of quantities wanted rearrangement. In making syrup of lacto-phosphate of lime the lactic-acid solution should be added to the phosphoric acid, instead of as the Pharmacopœia directed. The remark about making Easton's syrup in the cold applied to all ferrous syrups. In making syrup of ferrous iodide, if the iodine was powdered, the iron cut small, and cold water applied to the vessel during the reaction to prevent heating, a water-white solution would be obtained; the greenish colour generally observable was due to incipient oxidation.

Mr. McDIARMID pointed out that no reference had been made to adaptations or economies in making the concentrated liquors of the Pharmacopœia. These might well be left out, as there was no demand for them. He remembered that some years ago Idris, of London, sent out liquor magnesiæ carbonatis in syphons. It kept perfectly in that form. He asked if syrup of codeine kept, because he found that a fungoid growth appeared in a week.

Mr. NESBIT said he had made fluid magnesia in a gasogene many years ago, and it worked well. He always kept it in syphons.

Mr. HILL recalled that four years ago Mr. Dott recommended cochineal as an indicator in a discussion on solution of ammonium acetate, and it worked well at that time. He himself recommended that the alkalinity of ammonium carbonate should be determined by standard sulphuric acid, and the acidity of the acetic acid by standard sodium hydroxide. He still thought that was the quickest, easiest, and most accurate method.

Mr. BOA disagreed with Mr. Gilmour on one or two points, one being in regard to Easton's syrup, upon which point Mr. Cowie had practically expressed his objection. The syrup required a preservative, and chloroform would not do, because unless it was in the mixture form the taste could not be concealed. He had not experienced any trouble in making syrup of lacto-phosphate of lime, but they must have a good quality of precipitated chalk, else one was liable to get into trouble. With regard to Mr. McDiarmid's experience of fungoid growths in syrup of codeine, he said that before the preparation was made official there was a formula in use in which proof spirit was used to dissolve the salt, and he had noticed fungoid growths in it, but never in the official syrup.

Mr. GILMOUR briefly replied.

Mr. THOMAS STEPHENSON, F.C.S., then communicated some notes on the

INDIAN DRUGS OF THE B.P. ADDENDUM, 1900.

He said that a review in 1903 of a book published in 1900 appeared at first sight belated criticism, and he could not plead the excuse suggested to him by the Secretary that a belated opinion of one straight from India was more valuable than a prompter criticism from one who did not know the country. In India there is no Pharmacy Act; a Pharmacopœia is looked upon more as a guide, philosopher, and friend than it is in this country, and the authoritative recognition of certain drugs, which, though used for centuries by the people of India, had never become commercial articles, was about as helpful as the omission of a number of drugs in daily use in every pharmacy in the East.

Some time before the publication of the Addendum a circular was sent round to the principal chemists of India, in which the Government Medical Storekeeper for the district called for suggestions as to suitable items for insertion. The circular was couched in the usual unattractive official language, and from what he could gather at the time did not bring forth much result so far as pharmacists were concerned. Indian business men have, as a rule, too much to think about to be able to place their brains freely at the

disposal of the Government, and unless a man has a fad he is not likely to take much notice of such a circular. That the matter was taken up by faddists more than by pharmacists is evident from the pages of the book. Why, for instance, is it necessary to furnish two substitutes for calumba, which itself is an Indian product procurable in almost any bazaar for a few annas a pound? And why should Gurjun balsam or *Holarrhena antidysenterica* be omitted?

Out of fifty-four drugs recognised by the Addendum, forty-three are described as coming from India, although this is true of forty-two only. The last on the list (*Viburnum prunifolium*) is not a native of India, although another species of viburnum (*V. fectidum*), having similar properties, is to be found in that country.

The author also said a recent investigation had indicated that probably the so-called gyncardia-seeds of commerce were not the produce of any gyncardia, but of another plant entirely which belonged to the same natural order.

Mr. Stephenson then proceeded to speak of the properties of each of the drugs recognised by the Addendum for use in India, and his summing-up of the matter was that the Addendum of 1900 can hardly be said to mark a step in the progress of pharmacy. The drugs of India are interesting more from an academic than a pharmaceutical standpoint, and it is to be feared that official recognition of any of them will not alter the general consumption in their own country one way or the other. India is conservative to the backbone, and beyond developing such products as can be used commercially it is not wise to interfere officially with its materia medica.

Mr. Stephenson's paper was illustrated by specimens of the various substances referred to therein from the Society's museum.

Mr. DOTT said he had a distinct impression that a special quality of opium was made by the Indian Government for use in medicine, which was put up in cakes and was not like the balls sent to China for smoking.

Mr. HILL directed attention to two specimens of Indian opium on the table—one was from Patna, and was probably the kind Mr. Dott spoke of; the other was Malwa opium, and was in balls. Mr. Meldrum, of Calcutta, had drawn his attention to the odour developed when the bruised chaulmoogra-seeds were placed in water, and, on examination, he found that a very pure and powerful odour of hydrocyanic acid was speedily developed. That might lead to a difference in the ointment now made from the oil instead of the powdered seeds.

AFTER Mr. STEPHENSON had replied, the CHAIRMAN proposed a vote of thanks to the authors of the papers, which was cordially given.

Birth.

BELL.—On January 11, at London Road, Osmaston, the wife of A. H. Bell, pharmaceutical chemist, of a daughter.

Marriage.

SHARPLES—DAVIES.—On January 5, at St. John's Cathedral, Hong-Kong, Herbert J. Sharples, Imperial Maritime Customs, Wuchow, to Amy, daughter of Mr. Edward Davies, F.I.C., F.C.S., of Liverpool.

Deaths.

BEATTIE.—On January 12, at 14 Castlereagh Street, Belfast, John Beattie, druggist. The deceased was a prominent Mason, and the funeral was attended by many Freemasons.

BENNET.—At 1 Wildman Street, Nottingham, on January 18 Douglas, youngest son of A. Russell Bennet, pharmaceutical chemist, Principal of Nottingham School of Pharmacy. Aged 2.

WEST RIDING DINERS.

THE members of the Huddersfield Chemists' Association held their second annual dinner on Wednesday night, January 21, at the Queen Hotel, Huddersfield. The President (Mr. R. C. Walshaw) occupied the chair, and was supported by Alderman R. A. Robinson, J.P., L.C.C., Mr. G. F. Merson (Hon. Secretary of the Federation of Chemists' Associations), Mr. F. W. Branson (Leeds), Mr. A. Hanson (Bradford), Mr. C. W. Duffin (Wakefield), Mr. W. Pollard (President of the Wakefield Association), Mr. R. Broadhead (Batley), Mr. Walford (Barnsley), Mr. J. W. B. Johnson, and others. There was a goodly company of local chemists, and a fair sprinkling of members of the trade from other parts of the West Riding. The loyal toasts having been honoured, the President informed the gathering, amidst much applause, that every chemist and druggist carrying on business in Huddersfield was, or would presently be, a member of the Pharmaceutical Society. The toast of "The Pharmaceutical Society" was proposed by Mr. S. Stephens (Vice-President), and responded to by Alderman Robinson, who spoke at considerable length on the present position of the Pharmaceutical Society and its Council. He said the Council were fully conscious of the difficulties which lay in the path of the Society, but he, at any rate, was not at all pessimistic, for he believed that things were going to get better for the pharmacist instead of worse. He hoped chemists in other parts of the country could be induced to follow the noble example which had been set by Huddersfield in respect to joining the Society. Every chemist should support both the Pharmaceutical Society and the P.A.T.A., which had done so much by the recent Conference to foster the material interests of the chemist. He did not consider that there would be anything derogatory in the Pharmaceutical Society also endeavouring to do what it could for the promotion of the material interests of the chemists, and would have been glad if the recent Conference had been convened by that Society instead of by the P.A.T.A. The Council had serious difficulties to face, and one of these was imposed by the supposed intentions of the Poisons Committee, which was said to be likely to recommend that poisons for agricultural and horticultural purposes should be sold by persons other than chemists. If that widening of the door was permitted, they could not tell where the line would be drawn, for a natural process of reasoning was that if there was a general sale of poisons for some purposes it was not easy to see why restrictions should be maintained in respect of other purposes. He thought the public would be on their side when they made their protest in regard to this matter, but the question was whether that action should be taken now or later. He had given notice of a resolution at the next meeting of the Council that the Law Committee should consider whether they should now inform the Government of their intention to oppose to the utmost the widening of the door or whether they should wait until the Government had announced their intentions. Alluding to an objection to the proposed curriculum which Mr. Stephens had made in the course of his speech, Alderman Robinson said that he distinctly favoured a curriculum which should not be so expensive as to be a burden on the student, and also upon the understanding that it should no longer be demanded that all the subjects for the examination should be taken at the same time. He thought a curriculum, whilst not making any greater demand upon the young men, would be good for them individually; and it would strengthen the chemists in their position when they had to approach the Government upon any matter. Criticising in detail the proposals which are being made for a scheme of territorial representation on the Council, he expressed the opinion that the distribution of members of the Society was so unequal that he could not see how a fair and equitable scheme could be devised. He quoted figures which had been placed in his hands at Bloomsbury Square to show the disproportionate numbers of registered chemists in London, Yorkshire, several groups of the Southern counties, and the whole thirteen counties of Wales, and said that Wales in its entirety could only be said to be entitled to a quarter of a member in a territorial scheme. He urged also that the difficulty at present experienced in getting new members for the Council would be increased by

territorial limitations; that chemists in any given district would have no power to prevent the election of a member, however objectionable he might be, in any other district; and that there was no reason at present why the chemists of any area should not unite to secure the return of a candidate to represent that particular area. He thought the Council were doing their best, and, so far as he personally was concerned, if he found any red tape he would certainly try to untie it, and if he could not untie it he would not mind even cutting it. (Applause.) The toast of "The West Riding Federation of Chemists' Associations" was proposed by Mr. Merson, and responded to by Mr. Broadhead; and, other toasts having been honoured, the proceedings ended.

The Kaleidoscope.



The Auto-photo Tankard.

This invention has been designed to meet the requirements of the new Licensing Act. It consists of a silver-plated vessel (substantially as illustrated) with false bottom, in which is inserted a photo-lens and a sensitive disc at base. The lens has a fixed focus, and, if need be, the person using the tankard may be further tested by his pronunciation of the words "fixed focus."

Graduates in Pharmacy.

Has it ever occurred to you that when you take medicine you, more often than not, practically place your life in your chemist's hands? Is it not imperative therefore that you should obtain your drugs and medicines only from those chemists in whom you can place absolute confidence?

We ask your confidence and patronage for the following reasons:—

We are chemists; graduates in pharmacy. We have spent years in studying our profession. We employ only the most competent and skilful assistants. We are not grocers or drapers with a "Drug Department."

"A Drug Department!" Just as if potent and poisonous drugs were simply to be handled like butter or tea!

This is an advertisement by Messrs. Lewis & Burrows (Limited), occupying a space $3\frac{1}{2}$ inches wide by $4\frac{1}{2}$ inches deep. It is a good advertisement, but not above criticism—*e.g.*, a corporation cannot be "graduates in pharmacy." The House of Lords decision settled that. A more recent decision induces a different reflection.

SALE OF POISONS IN INDIA.—*A propos* of a case of alleged poisoning which came under its notice the local High Court at Travancore has called the attention of the Indian Government to the fact that an abnormal quantity of poison has come to the hands of the lay public, and suggested that something should be done to restrict the sale of poisons.

Observations and Reflections.

BY XRAYSER.

The Art of Prescribing

is evidently, in the opinion of the *British Medical Journal*, in a shaky condition. The present tuition and training of doctors does not qualify them, we are told, "to so prescribe drugs that the patient may count on getting his remedy in an agreeable and convenient form, or the chemist a prescription within the bounds of possibility to dispense." But all the same "the chemist has no right to alter any detail of a prescription without the prescriber's authority; his office is merely executive." What the chemist is to do when he gets a prescription which it is not within the bounds of possibility to dispense, but which he may not modify in the smallest detail, is not explained, though it is somewhat inconsequently urged that whatever he does he must not himself do any prescribing. The logical conclusion one would have expected would have been that the incompetent doctor should not prescribe.

Sixty per Cent.,

according to the accountant's report to Mr. E. A. Holloway's creditors, was the rate of gross profit made by that gentleman during his five months' career in a little pharmacy in Queen Victoria Street. This is tempting, and a few thousands of us are disposed to swarm within a bow-shot of the C. & D. office. It reads better than Shepperton-on-Thames even. I do not know what is the present average gross profit made by chemists in the West-end of London. It has to be high, I suppose, if only for the sake of the landlords, but outside these areas (the City and the West-end) I doubt if the average anywhere exceeds 35 per cent., and to get to this level even a good bit of what the halfpenny papers call substitution has to be invoked.

American Profits

in the drug-trade do not seem to be better than ours. I read an article the other day in the *Western Druggist*, of Chicago, entitled "What Becomes of the Profits?" by Frank E. Falkenberg, Ph.G. The writer, who apparently had in view a city business, analysed the receipts of a certain drug-store where the take averaged \$20 (4*l.*) a day. Of this \$20, he said, \$4 was for cigars, with a profit of \$1.20; \$5 for patent medicines, with a profit of \$1.66; \$1 for sundries, with a profit of 33c.; and \$10 for drugs and prescriptions, on which a profit of \$5 was estimated. That yielded a gross profit of \$8.19, or rather over 40 per cent.; but rent, gas, assistance, and other working-expenses amounted to \$6 a day, leaving to the owner a net income of \$2.19—say, 9*s.* a day. So Rockefeller and Pierpont Morgan are not, after all, fair samples of the reward of labour in the U.S.

Mr. Pierpont Morgan,

it is averred, issues to favoured individuals a card on which is engraved over his signature "Permit bearer to walk on the earth and breathe occasionally." London chemists and druggists who desire to retain similar privileges will soon have to beg for such a passport from Nottingham. I see a large new shop being fitted for "Boots Cash Chemists" in Holborn, and another opposite King's Cross Station. I hear of other new ones in the north, south, east, and west of the metropolis. For many years there seemed to be a sort of treaty among these drug companies, each respecting the other's spheres of influence. Dog did not eat dog. That refinement of delicacy appears to be now abandoned. "What a city to

sack!" said Marshal Blicher, as he looked on London from the top of St. Paul's. What Mr. Boot said when he had settled with Mr. Day is not recorded, but we can now guess what he thought. London must be pharmaceutically an *annexe* of Nottingham. The qualified A, B, and C's, and the limited X, Y, and Z's who have already secured good pitches must be fought. *On se soumettre ou se démettre.*

Struggle, will they?

The worms would compete, indeed. They must be taught what that means. Our medicines shall be given away. I saw an announcement in one of the company's country shops the other day that anybody could get a daily dose (for his or her liver, I think) free for a fortnight, and now my evening paper tells me that 20,000 large sample-bottles of a cough-cure "prepared in one of the most modern laboratories in the world on scientific principles from ingredients not generally known in Great Britain," are being given away this week. On Monday one of Parke's stores was to give away 4,000 samples; on Tuesday, Wednesday, Thursday, and Friday, Boots, at various addresses, had the privilege of effecting the distribution. Note, 4,000 in each shop each day between 9 and 4, only one to each applicant, who must in every case be an adult. It would mean handing out the samples at the rate of ten a minute without any cessation. The melancholy reflection is that this style of business is a prominent characteristic of the legacy of pharmaceutical progress which we of the nineteenth century have bequeathed to our successors of the twentieth.

The Grammarians

had a good innings last week. The Irish Pharmaceutical Council, the Irish Privy Council, and the Royal University of Ireland are planning formulæ with the object of preventing anyone from proving his knowledge of another language than his own unless he has waded to that knowledge through the study of its grammar. Elsewhere "C. C. B." lays it down that "a good grounding in grammar is essential to a good education." Mr. Kelly, in the Irish Council, alarms us by suggesting the risk that a candidate in the Society's Preliminary examination might get five marks for Latin translation and nothing for Latin parsing, and yet pass in Latin under existing arrangements. I do not presume to doubt the danger or to dispute the dogma. But let us be clear about

What we Mean.

Is it acquaintance with the language or skill in its analysis which it is so important to attain to? Many thousands of people who talk and write English accurately could not parse a single sentence. Nobody can a year after leaving school. A hundred people learn French by reading French novels to every ten who learn it *via* the methods of Stratford-atte-Bow. Scores of British schoolboys probably are better acquainted with the forms of Latin grammar than was Cicero. "Ego sum Imperator Romanus et super grammaticam," roared Sigismund at the Council of Constance, when corrected by a cardinal for using "*schisma*" as a feminine noun. He could talk the language and understand it when spoken, but such as he must be plucked at Dublin. It is, perhaps, not now practicable to learn a dead language except by the tedious way of the grammar-book, but that certainly does not apply to living tongues. If the purpose be to read, write, speak, and understand a language, there are better ways of acquiring this knowledge than by beginning with the grammar. Poets are not manufactured by a course of lessons in prosody. As a philological study grammar is of great interest, but it would better follow, and not precede, the attainment of some familiarity with the language itself.

GOOD WINTER LINES

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PATENTS AND TRADE MARKS.

There are many worrying difficulties to be overcome in connection with the Registration of Trade Marks and the grant of Letters Patent which members of the Retail and Wholesale Drug Trade can avoid by consulting an efficient agent, who would undertake all the trouble for an inclusive fee and obtain protection in the United Kingdom and abroad. Advice in the first instance free. Pamphlets gratis.

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Editorial Comments.

"Specially Qualified."

THE drug-trade, or that section of it which also practises dental operations, is again agitated by the proceedings instituted by the British Dental Association under Section 3 of the Dentists Act. We have during the past few weeks received a large number of circulars issued by chemists, for the purpose of advising as to whether they came within the section or not, and we judge that there is a general desire on the part of chemists not to infringe the law. Section 3 is in the following terms, the italicised portion in brackets having been enacted by the Medical Act of 1886:—

Penalty on Unregistered Persons Using Title of "Dentist," &c.

From and after the first day of August one thousand eight hundred and seventy-nine, a person shall not be entitled to take or use the name or title of "dentist" (either alone or in combination with any other word or words), or of "dental practitioner," or any name, title, addition, or description implying that he is registered under this Act or that he is a person specially qualified to practise dentistry, unless he is registered under this Act. [It is hereby declared that the words, "title, addition, or description," where used in the Dentists Act, 1878, include any title, addition to a name, designation or description, whether expressed in words or by letters, or partly in one way and partly in the other.]

Any person who, after the first day of August one thousand eight hundred and seventy-nine, not being registered under this Act, takes or uses any such name, title, addition, or description as aforesaid, shall be liable, on summary conviction, to a fine not exceeding twenty pounds; provided that nothing in this section shall apply to legally qualified medical practitioners.

The original intention of the section was, apparently, to prohibit unregistered persons using titles similar to "dentist," "licentiate in dental surgery," "L.D.S.," and the like. The Act does not prohibit the practice of dentistry by

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persons whose names are not on the Dental Register, and it recognises in such persons a degree of qualification by forbidding them to say that they are specially qualified. It follows, therefore, that the title, addition, or description referred to in the section must be, in order to constitute an offence, applicable to the individual as a person using the same. Since the conviction of several chemists a year or two ago we have advised correspondents that description of the qualities of the goods they supply is not a claim that they are specially qualified in the sense of the Act; but some people appear to have difficulty in excluding themselves from business descriptions, and whenever the *ego* comes in there probably is infringement of the Act. Description of the qualities of the work done—*i.e.*, not the materials but the skilful manner in which the materials are manipulated by the unregistered person—also comes into the *ego* category. In none of the cases wherein the British Dental Association has succeeded do we find absence of a claim of superiority by the defendant. The following phrases embody superiority, and have been held to mean special qualification:—

- Perfect fit guaranteed.
- A. B. guarantees to give complete satisfaction.
- Artificial teeth by someone (A. B.) with an established reputation.
- Badly fitting sets of all makers remodelled and made perfect.
- Perfect teeth supplied.
- Good workmanship and a perfect fit are assured because A. B. superintends everything himself.
- Satisfaction guaranteed.

The most highly qualified registered dentist in the land cannot do better than is implied in these commonly used phrases and sentences, and, as the Cardiff Stipendiary said last week, "it is a very great hardship on properly qualified persons that they should have to enter into competition with persons who are unqualified." Chemists and druggists are well able to appreciate that: they have been in the position for a quarter of a century. Nevertheless, such rights as they in common with other citizens have should not be circumscribed by undue stretching of the provisions of Section 3, as the British Dental Association is inclined to do. For example, its legal representative at Cardiff last week contended that "if anyone exhibits a case with anything therein implying that he is a gentleman who deals in matters relating to teeth, it is sufficient to bring him within the meaning of the Act." This contention is ridiculous, as are also the suggestions that words like "All work done on the premises," "Moderate charges," "Teeth extracted by ethyl chloride," and "Consultations free" are descriptions implying that the person is specially qualified to practise dentistry. If the British Dental Association persists in such travesty of the Act, it will be necessary to fight it boldly, and we are pleased to note that the Chemists' Defence Association has found a basis of defence in the case of Mr. Templar Malins, which will come on for hearing early next month.

Iron Pills.

At least one London inspector under the Sale of Food and Drugs Acts has been purchasing "iron pills" lately, and some have sold him coated Bland's pills. The articles may or may not be synonymous; but the Chemists' Defence Association (Limited) is this week advising its members to make iron pills fresh when they are asked for by that name, and not to sell ordinary Bland's pills when iron pills are asked for. This is a case in which examination of stock is necessary—that is, where the pills are bought ready made—in order to insure that they approximate to the British Pharmacopœia statement: "If divided into 5 gr. pills each pill will contain about 1 gr. of ferrous carbonate." In cases where the pills are made on the premises only a sm. ll

supply should be made at a time. The sugar and glycerin were found by Maben (*C. & D.*, September 3, 1887) to be the best preservatives for Bland's pills, but his experiments showed a steady diminution of ferrous carbonate from 1 gr. FeCO_3 when freshly made to 0.80 gr. after six weeks. Coating the pill is a further preservative against oxidation, pills which when fresh contained 0.98 gr. FeCO_3 showing 0.90 gr. FeCO_3 after four weeks. Rapid coating is assumed so as to minimise the risk of oxidation. Mr. R. C. Cowley in 1895 examined a number of samples of Bland's pills, and found that many of them were stronger than the pharmacopœal pill. In conducting an analysis of the pills standard bichromate solution is the best to use, and dilute phosphoric acid is better than sulphuric acid for dissolving the iron in the pill on account of the presence of sugar.

The late M. de Blowitz.

The death last Sunday (January 18) of M. de Blowitz, who for more than thirty years had been Paris correspondent of the *Times* in Paris, removes from contemporary journalism a personality who has been scarcely less prominent in the world of politics than the leading statesmen during the last quarter of a century. His individuality was so remarkable that statesmen and ambassadors of all countries have been glad to treat him as their friend. But in adding our tribute to the memory of this great journalist we confine ourselves especially to recalling the fact that whenever a great chemical or scientific discovery or achievement has taken place in France, the Paris correspondent of the *Times* has always promptly reported the fact, and usually given lengthy details with great correctness and a grasp of the scientific aspect of a subject that did him credit. Not less remarkable was his aptitude for separating the wheat from the chaff, and so it came about that if the *Times* said in its Paris news that such a discovery had been made, or that such a scientist had received a special distinction, then it might be taken as an undoubted fact that the discovery was a great one or that the name of the scientist would go down to posterity. Our Paris correspondent is fortunate enough to hold a testimonial from M. de Blowitz, with whom he was personally acquainted, for "service rendered to the *Times*," which we attribute not only to the kindly feeling of the great journalist towards his *confrères*, but also to his desire and readiness to promptly acknowledge a service. M. de Blowitz entered the journalistic career somewhat late in life. He was originally a professor of languages, and afterwards applied himself to mechanics, but the explosion of a machine he had invented having nearly cost him his life, he relinquished mechanics for letters. It is curious to note that he never learnt either to speak or write English fluently. His text was always written in French, and translated by a very able and devoted English colleague.

Grocers and Medicated Wines.

Following upon our note on this subject last week, we quote the following letter, which was read at a recent meeting of the Mid-Rhondda Grocers' Association, reported in the *Grocer*:—

In reply to your letter, I am directed by the Board of Inland Revenue to acquaint you that the sample of wine forwarded is sufficiently medicated to be sold without a licence by chemists or druggists, provided the recommendations on the labels relating to the wine were such as to show that the wine is intended to be used as a medicine, and not as a beverage.

The label, however, on the sample submitted indicates that the wine is to be sold by grocers as well as by chemists, and the recommendations as to its use point to its consumption as a beverage rather than as a medicine, and in the circumstances the Board could not allow the wine to be sold by a grocer without a wine licence.—I am, Sirs, your obedient servant, J. P. BYRNE, Assistant-Secretary.

It was reported that the firm who received this letter had taken steps to alter their labels so as to conform to the regulations of the Board.

Vaccination : 1803-1903.

At present there is a movement to have us all vaccinated more frequently, the Imperial Vaccination League being responsible for it. In this connection we quote the following advertisement from the *Times* of Wednesday, January 19, 1833:—

EXTERMINATION of the SMALL POX.

London, Jan. 10, 1803.

The invaluable Discovery of Dr. JENNER, for the Extirpation of the SMALL POX, having undergone the most rigorous investigation, and received the sanction of Parliament, a MEETING will be held at the London Tavern, Bishopsgate-street, on Wednesday, the 19th instant, at 12 o'clock, to consider of the best means of carrying the same into effect; when the company of every Gentleman disposed to concur in this laudable Undertaking is earnestly requested. The Chair will be taken, by the LORD MAYOR, precisely at one o'clock.

Then follow the names of eighty gentlemen, beginning with the Duke of Clarence, and the following medical men:—

Walter Farquhar, M.D.
J. C. Lettsom, M.D.
Thomas Denman, M.D.
Richard Croft, M.D.
Thomas Bradley, M.D.
Gilbert Blane, M.D.
Alexander Crichton, M.D.
William Hawes, M.D.
William Babington, M.D.

Robert Willan, M.D.
Richard Powell, M.D.
William Lister, M.D.
James Hamilton, M.D.
James Sims, M.D.
Alexander Marcet, M.D.
W. P. Dimsdale, M.D.
Samuel Pett, M.D.

The movement thus started had a direct result five years later, when State-supported facilities for vaccination began in England with the National Vaccine Establishment, but it was not until 1853 that vaccination was made compulsory in England and Wales. In the year before that there were 7,320 deaths from small-pox in England and Wales, but this figure was exceeded in 1864 (7,634), 1871 (23,126), and 1872 (19,094). The figures for 1871 are the highest recorded, and are equal to 1,012 deaths per million of the population. Since then the outstanding mortality figures have been 173 per million in 1877, 119 in 1881, and 103 in 1885. The death-rate fell to a fraction of a unit in 1890 and 1897, and in eight of the twelve years since 1887 the death-rate has fallen below 10 per million.

The Chemists' Opportunity.

It appears that Mr. W. J. Leggett, Secretary of the Patent-medicine Vendors' Defence Association, has been in correspondence with Mr. W. W. Rutherford, of Liverpool, the new Conservative member for the West Derby Division of that city, on the subject of unqualified assistants and patent-medicine prosecutions, and has received the following communication:—

DEAR SIR,—I am in receipt of your letter with explanatory matter as regards the Patent-medicine Vendors' Defence Association. It is exceedingly interesting, and no doubt there are a considerable number of fairly simple and well-known medicines which are usually sold accompanied by completely simple and satisfactory directions for their use, which probably do contain small quantities of what are technically called poisons; but when a medicine has attained a position well known to the whole community, and is sold with clear instructions, it seems ridiculous that by an Act of Parliament, which, I believe, was never intended to have any such effect, the man who happens to be the vendor of the medicine should be fined and treated as a criminal.

I am,

Yours faithfully,

W. WATSON RUTHERFORD.

It will be observed that Mr. Rutherford was cautious, and did not commit himself to anything very definite, and a plain statement of the chemists' side of the question is indicated.

Progress in Acetylene-lighting.

Professor Vivian Lewes, in concluding a series of lectures on "Illuminants" at the Society of Arts, mentioned the failure of acetylene-lamps as an omnibus-illuminant, and stated that the difficulties in this connection are now in a

fair way to be satisfactorily overcome by the introduction of acetylene dissolved under pressure in acetone. It has been discovered by MM. Janet and Fouche that when acetylene is dissolved in acetone absorbed by porous materials of the right kind under ten atmospheres pressure, it is impossible to produce explosion, even when electric sparks are passed through the containing cylinder or platinum wires are fused in it. Exhaustive tests which Professor Lewes has seen carried out in France demonstrate the absolute safety of acetylene compressed under these conditions. Under this new system acetylene is evolved from carbide in the ordinary way, and after purification is compressed under ten atmospheres into cylinders containing a porous medium of 80 per cent. porosity soaked with 43 per cent. of the capacity of the tube with acetone, and in this way 1 cubic foot of cylinder-space is found to hold 100 cubic feet of acetylene, which is again to a large extent given off when the pressure is reduced by opening the stop-cock of the cylinder. Supplied to burners through proper regulating-apparatus this gives a magnificent illumination, and such cylinders of small size, fitted to trams and omnibuses, are perfectly controlled by simply turning a cock, so that all waste of gas, trouble with residue, and smell are obviated. The system is now in the hands of the Acetylene Illuminating Company in London, and the Home Office has sanctioned the use of acetylene in this form.

Hospital Movements.

Great controversy prevails in regard to the proposal of the Governors of St. Bartholomew's Hospital, London, to enlarge the hospital. A strong counter-movement to build a hospital elsewhere, so as to make the present site available for building-purposes, has so far prevailed that a Committee of Inquiry has been appointed to consider the question. The only direction in which the hospital can be augmented, apart from the small part of Christ's Hospital ground, recently purchased, is upwards, and sky-scrapers are not tolerated in the City of London. The ground is worth over a million, and it is conceivable that three or four times more could be obtained further afield at a fraction of that, thus leaving a large margin for building and maintenance, without crippling the first-aid to Londoners, which is the primary reason for keeping so huge an establishment upon several acres of the most precious ground on earth. The hospital of King's College is to be removed from the Strand district whenever the authorities get the money. London Hospital wants half a million just now.

Anæsthetising Flowers.

A short time ago we noted a series of experiments which a Montpellier florist had conducted on the action of anæsthetics on flowers. It was found that the vapours of ether and benzine exerted a pronounced forcing effect on lilac and some other flowers upon which it was tried. The method was suggested as long ago as 1878 by Claude Bernarde in his book on "Phenomena Common to Animals and Plants," and it has since been worked out by Professor Johansson, the Danish physiologist. Etherisation is a method of abridging by some months the natural resting-period of a plant, so that a blossom which normally would appear in spring can be produced the previous autumn. The process is being tried on a large scale by Mr. Jannock, Dersingham, Norfolk. The plants are shut up in a confined space, and submitted to the vapour of ether for forty-eight hours, during which time the plants shed their leaves. Exposure to air for forty-eight hours follows, and then a second period of etherisation, when the plants are removed to a forcing-house and rapidly blossom. The lilac submits to the process very readily, but successful experiments have been conducted on *Azalea mollis*, *Prunus triloba*, *Deutzia gracilis*, and *Viburnum plicatum tomentosum*. Other anæsthetics may give better results in those cases where ether has not been a success, but the method, if it catches on, means the use of a large quantity of ether, to the benefit of chemical-manufacturers.

Legal Reports.

High Court Cases.

THE CREOLIN DISPUTE.

IN the King's Bench Division, on Friday, January 16, before Mr. Justice Wright, the action of Jeyes' Sanitary Compounds Company v. Pearson was again mentioned (see *C. & D.*, January 17, page 76).

Mr. Ruegg, K.C., who appeared for the plaintiff company, stated that certain terms submitted by the defendant had been considered, and counter-proposals had been made which would require time for further consideration. He accordingly asked for a further adjournment.

Sir R. Reid, K.C., who represented the defendant, said that if the adjournment was granted it was possible that a settlement might be arrived at.

His Lordship asked if it would be of any assistance to the parties if he stated what was his *prima facie* impression.

Sir R. Reid said that it undoubtedly would.

His Lordship said it struck him—*prima facie*, of course, subject to further argument—that Mr. Pearson was not entitled to sell in France "Creolin-Pearson," but that he was entitled to sell his own preparations which were not creolin. As to the counterclaim, it appeared to him that there was very little evidence of the sale of creolin by the plaintiffs directly in countries where the defendant had the sole agency.

Mr. Ruegg said that disposed of the first action.

His Lordship remarked that that was merely his *prima facie* view, and he was ready to hear further argument on either side.

Mr. Ruegg asked his Lordship's view as to the second action.

His Lordship: I will say nothing about that.

A further adjournment until the first week in February was then agreed to.

SACCHARIN v. SUCRAMINE.

IN the Court of Appeal on Monday, before the Master of the Rolls (Sir R. Henn Collins) and Lords Justices Stirling and Cozens-Hardy, the case of the Saccharin Corporation (Limited) v. Wild & Co. was heard on appeal by the defendants from an order of Mr. Justice Kekewich declining, until the defence was put in, to make an order directing the plaintiffs to give further particulars of their causes of action or to limit their action in the first instance to certain patents. Mr. Warrington, K.C., Mr. Astbury, K.C., and Mr. Shaw appeared in support of the appeal, which was opposed by Mr. Moulton, K.C., and Mr. Graham.

Counsel for Wild & Co. stated that the action was a very peculiar one and the question raised was of considerable importance. The plaintiffs claimed by their writ to be the owners of, and sued in respect of the infringement of, seventeen different patents. They subsequently amended their writ, extending the number of patents sued upon to twenty-three, all of which they alleged the defendants had infringed. The defendants were the purchasers from abroad of a parcel of sucramine. They did not know by what process sucramine was made, the only information they possessed being that the foundation of the process was a saccharin patent of 1885, which expired in 1899. As to the rest of the process it was said to be a trade-secret of the manufacturers, which they declined to disclose. Originally, as stated, the writ was confined to seventeen patents, and in that state of things an affidavit was made by Dr. Otto Hayler in support of the present application, in which he stated that these seventeen patents might properly be divided into groups, and that they were alternative processes for procuring saccharine in a marketable sense as described in the expired patent of Fahlberg. Dr. Hayler stated as an expert that there were other methods by which the same result could be obtained than the seventeen patents, and that statement turned out to be true, because subsequently to that affidavit the plaintiffs applied for and eventually obtained leave to amend their writ by adding six other patents, in respect of which they alleged infringement. Subsequent to that amendment, Dr. Hayler made a further affidavit in which he stated that he had no doubt that there were still processes by which the article in question might be made other

than by the twenty-three patents sued upon. Saccharin, or what perhaps might be better called "pure saccharin," which was the article manufactured by the plaintiffs and covered by their twenty-three patents, was 550 times sweeter than sugar, but the article which the defendants sold was said to be 700 times sweeter than sugar. The present application was that the plaintiffs might be required to specify which of the twenty-three letters patent they relied upon, or, in the alternative, that an order might be made limiting the trial of the action to such of the twenty-three patents as the Court might think just. The object of the application was to put the defendants in a position to defend the action without being put to an oppressive and almost prohibitive expense. The plaintiffs said that all the twenty-three patents had been infringed, and therefore it could be no hardship upon them to specify, in the first instance, at all events, one or a few of the patents which they alleged had been infringed. Suing as they did in respect of them all, every one would have to be considered, if an effectual plea of validity was to be put in, by an expert, and the defendants would be put to an expense of about 400% in the preparation of their defence. The defendants had told the plaintiffs what they knew about the saccharine they had imported, and from whom they bought it, and they had therefore placed it in their power to make such inquiries as they thought fit. In these circumstances he asked the Court to accede to the application of the defendants.

Mr. Moulton asked the Court not to interfere with the discretion of the Court below, as the facts fully justified the decision which had been arrived at by Mr. Justice Kekewich. Until the defendants had put in their defence it was impossible for the plaintiffs to know which of the twenty-three patents had been infringed, but, on the other hand, the Patent Office was open to all the world, and it was within the power of the defendants to go and see those patents if they desired to raise the question of invalidity.

The Master of the Rolls, after hearing Mr. Warrington in reply, pointed out that the difficulty in which the plaintiffs found themselves of not being able to state which of the twenty-three patents the defendants had infringed was no reason for shifting the onus of proving the case from the plaintiffs to the shoulders of the defendants. The owner of a patent obtained certain privileges under the patent laws, and the ownership also involved certain disadvantages; but because he was placed in a difficulty, by reason of the nature of the monopoly which the Legislature had given him, he could not plead that as a reason for imposing upon the defendant a burden which the Legislature had imposed upon the plaintiff. In olden days one cause of action was thought sufficient, but though that rule had been to some extent relaxed, it would be going to an outrageous extreme to permit no fewer than twenty-three causes of action in one writ. To limit the trial to one cause of action would, perhaps, be narrowing the area too much, but he thought it would be fair to say that it should be confined to any three of the patents in question at the plaintiffs' option, which could be conveniently tried together; to limit their claim to one patent only would be narrowing the area too much. There would be an order accordingly, and the costs of the appeal and of the application in the Court below would be reserved to be dealt with at the trial. The plaintiffs would have three weeks for amending their statement of claim.

Lord Justice Stirling and Lord Justice Cozens-Hardy delivered judgments to the same effect, adding that the permission given by the Court on the former occasion to the filing of the affidavit by Mr. Wild and to the cross-examination upon it must not be taken as a precedent in similar cases, for the Court had given no decision whatever upon the question of allowing a further affidavit: it was purely a matter of consent at the time between counsel.

THE WILLOW-BARK CASE.

ON Friday, January 16, Lord Kyllachy heard counsel in the Court of Session, Edinburgh, in the action by L. Schiltz & Co., willow growers and exporters, Antwerp, for payment of 238% 12s. for a cargo of red-sourcé willow-peelings, supplied to J. F. Macfarlan & Co., chemical-manufacturers, Edinburgh. A report of the evidence was given in the *C. & D.*, January 10, page 46.

Mr. Wm. Campbell, K.C., for the pursuers, addressed himself to the two objections upon which payment was refused

by defenders—(1) that the consignments contained large quantities of peelings other than red scorce, and (2) that it was not all 1902 crop. Substantially, the real objection was, he said, that the bark did not work out the proper percentage of salicin. He maintained that this objection was unfounded; submitted that his willow-grower witnesses were better able to speak of what was rood willow and what was not than were defenders' witnesses, and declared that it was not until Mr. Cowie, one of the pursuers' last witnesses, was under cross-examination that the point about the botanical origins of the different willows was raised in cross-examination. Counsel addressed himself to the last point, saying that defenders had put themselves out of court as to any right to reject the consignment because it was not derived from *Salix fragilis*. His reason for saying so was that the fact either way had not been ascertained by defenders. He would not enter into the question of the difference between the analyses on both sides, saying this was a jury question; and concluded by complaining that defenders delayed so long in intimating the rejection of the first instalment that the other two were despatched in the meantime.

Mr. Clyde, K.C., was then heard on behalf of the defenders. The plea of non-timeous rejection was not put in, he said, until the record was closed. He also spoke about the origins of rood scorce, denying Mr. Campbell's statement that it was yielded by a dozen kinds of willows, and saying that "rood scorce" meant the bark from the "wada," the "rens," and the "rood." He was proceeding to speak about the hybrids and *S. purpurea* when

His Lordship asked if "rood scorce" did not also apply to the hybrid *rubra*.

Mr. Clyde could not say from the evidence. He then discussed the botanical aspects of the matter, and came down to the legal proposition, which was that what was ordered was so many tons of red scorce willow-peelings, and the pursuers were not entitled to give defenders anything else. If it was a regular thing to have a certain quantity of impurity in the market, the onus lay on pursuers to prove it. He submitted, contrary to Mr. Campbell, that the samples were fairly taken, and that they showed admixture with 10 to 20 per cent. of useless bark. He contended that the varieties of bark could not be tested accurately by the eye. Dr. Crispo said it was *purpurea*, and Mr. Cowie's evidence was not satisfactory or complete. On the other hand, he thought the defenders put very intelligently the case before his Lordship upon the identification of the physical characteristics of the leaves, buds, &c. The evidence of Mr. Noens and Mr. Whiffen corresponded, and only Mr. Cowie ran away with the idea that it was a hybrid. As to analysis, he looked upon it as important only as bearing on the question of purity. A chemical analysis was one thing and an assay for trade-purposes was another thing. The defenders used for this consignment exactly the same process that they had used all along. He concluded by meeting Mr. Campbell's argument as to non-timeous rejection.

Lord Kyllachy took the case to *avizandum* (reserved his decision).

Shop-hours Act.

EMPLOYMENT OF ERRAND-BOYS.

At the Spelthorne Petty Sessions held at Teddington on Monday, January 19, Mr. Peter Stacey, pharmaceutical chemist, High Street, Teddington, was summoned by Mr. Walter Tyler, an inspector to the Middlesex County Council, for employing a young person under the age of 18 for more than seventy-four hours, including meal-times, during one week in or about his shop; and he was also summoned for failing to have a notice exhibited in his premises, contrary to the provisions of the Shop-hours Act, 1892.

Mr. Tyler said it was the first case that had been brought before the Court, and the proceedings were taken under Section 3, Sub-section 1, of the Shop-hours Act, 1892.

Alfred Bennett said he was 15 years of age, and was employed by Mr. Stacey to deliver medicines to customers. His hours were from 8.30 A.M. to 9.30 P.M., and 10.30 on Saturdays, and he also attended on Sundays. Those were his hours during the week commencing December 7. He was allowed two hours for meals.

Mr. Tyler said that made seventy-eight hours in one week, including meal-times.

Mr. Young (who appeared for defendant) said there was a question as to the interpretation of the words of the section "in or about a shop." This boy, who was for the greater part of his time delivering medicines to customers, could not be said to be employed "in or about" the defendant's premises. He was frequently far away from the premises. Besides, the Act was never intended to apply to a case like this, being, in his opinion, passed to protect young persons who were kept indoors from morning till night.

The Chairman: The Bench are against you, Mr. Young.

Sir George Kekewich (a Magistrate): Do you argue, Mr. Young, that if a boy is employed running errands for twenty out of the twenty-four hours it makes no difference?

Mr. Young: Well, sir, his meal-hours should not count. There are two hours during the day that he is perfectly idle.

Mr. Stacey was called, and said he had been in business in Teddington for twenty-three years. He was not aware of the provisions of the Shop-hours Act, or that he was infringing them; and when Mr. Tyler called and found he had no notice exhibited, he said he would send him one, and he thought the matter would end there.

Mr. Young: And did he send you one?

Witness: Oh, no. He sent me a summons instead. (Laughter.)

Mr. Tyler, in answer to Mr. Young's contention, said there were several cases bearing on the point. In the case of *Coleman v. Roberts* in the Queen's Bench it was held that a boy employed in a shop and outside it delivering newspapers was employed "in or about" the shop; and in the case between the London County Council and the Savoy Hotel, where a boy was employed in the hotel as a page, and out of it as a messenger, a similar judgment was given, and it was also held that the hotel was a shop within the meaning of the Act.

This was all the evidence.

The Magistrates having consulted, the Chairman said they did not regard it as a bad case, as the boy was not kept in close confinement, and they therefore ordered the defendant merely to pay the costs, amounting to 17s.

Weights and Measures Act.

"SIXTY GRAINS" IS NOT "ONE DRACHM."

At the Spelthorne Petty Sessions on Monday, January 19, Mr. John Fraser, chemist and druggist, trading as Miller & Co., at High Street, Hampton Wick, was summoned for having in his possession for use in trade a number of grain weights which were unstamped; also for having a weighing-machine that was unstamped; and, further, for having a grain weight that was not according to the Board of Trade standard. Mr. Walter Tyler, who prosecuted, said he called at the defendant's premises on December 15 to purchase certain drugs for analysis, and going behind the counter he found seven weights—for 300, 200, 100, 60, 30, 20, and 10 gr. They were unstamped, as was also a weighing-machine which he found. The 60-gr weight was not recognised by the Board of Trade. The denomination should be 1 dr. The importance of having these weights properly stamped was shown by fact that they were frequently used in the sale of poisons. Defendant admitted that the weights were unstamped, but he said they were perfectly just, and he had never used them in trade, employing drachm, minim, and scruple weights. The weights, however, were stamped now. The Chairman said the Bench were satisfied that the defendant had no intention to contravene the Act, and they would let him off on paying the costs.

County Court Cases.

THE DOG AND THE ERRAND-BOY.

At Weston County Court last week, William Leonard John Beard, an infant, sued, through his mother, for the recovery of 20s. damages alleged to have been sustained by the bite of a dog belonging to Mrs. Pryce Morris, and also for medical attendance. The boy was in the employ of Messrs. Boots (Limited), chemists, High Street, as an errand-boy, and it was stated that on returning to the shop from an errand he was attacked in the street and bitten by one of

two dogs belonging to defendant. The same dog had bitten another boy, who had been paid some trifling compensation. After hearing evidence, the jury brought in a verdict for 15*l.* damages and the medical fees.

CHEMIST'S EXECUTORS SUED.

At the Blackburn County Court on January 19, before Judge Coventry, William Henry Law and Mrs. James Law, the executors of the late Alderman James Law, chemist, of Blackburn, were sued by James Place for 35*l.*, alleged to be due as commission on sales for the years 1896, 1897, and 1898. The plaintiff, in his evidence, said that up to 1896 he received from Mr. Law a commission of 5 per cent. regularly. The allowance was stopped, and Mr. Law, to whom he spoke about it, said he would look into it. Subsequently, after 1898, witness went to work for Messrs. Thwaites, and in 1900 he received a cheque for 10 guineas from Mr. Law, who said it was on account of the sum owing, and that he would have the books squared up. Afterwards he saw Mr. Law several times, but on each occasion he said he had not had time to look into it. He was of the opinion that 15*l.* a year was a fair rate of commission. The arrangement with Mr. Law was that the commission should not be upon sales amounting to over 800*l.* only, but upon all his sales. For the defence it was sought to show that the plaintiff had actually received more commission than he was entitled to. Judgment was eventually given for the plaintiff for 3*l.* 15*s.*, with costs.

A DISPUTED ACCOUNT.

At the Blackburn County Court on January 12, William Butterfield, chemist, of Nova Scotia, Blackburn, sued Mrs. Ellen Norman for 10*s.* 6*d.* for drugs, powders, &c., supplied. The case was before the Court in December, when the defendant denied the debt. She brought a signed bill on January 5 to show she had paid the money, and the case was further adjourned to allow the plaintiff to bring more evidence. On the present occasion he called his travellers, who all denied that the woman had paid any of them. The Registrar told the defendant he did not believe her, and gave a verdict for the amount claimed.

Sale of Food and Drugs Acts.

MERCURY-ointment APPEAL.

At Tunstall Police Court on January 15, Mr. F. W. Wain (of Messrs. Wain & Harris, Burslem) laid an application for leave to appeal against the decision of the Stipendiary in his judgment against North Staffordshire chemists for selling mercury-ointment containing a less percentage of mercury than set out in the British Pharmacopœia.

The cases in which an appeal is sought are those in which Messrs. A. Fernley, Thomas Leicester, and A. P. Tiley were concerned. They labelled the ointments which they sold "Diluted mercury-ointment," wrapping the boxes in paper. The point of the appeal is to ascertain whether such labelling is not a sufficient notice under Section 8 of the 1875 Act, which declares that "no person shall be guilty of any offence [under preceding sections] . . . if at the time of delivering such drug . . . he shall supply to the person receiving the same a notice, by a label distinctly and legibly written or printed on or with the . . . drug, to the effect that the same is mixed."

MORE CASES.

At Brierley Hill on Thursday, January 22, before Mr. Neville, Mr. Fletcher, chemist, Brierley Hill, was charged with selling mercury-ointment 40 per cent. deficient in mercury. He was defended by Mr. J. W. Clulow, solicitor; and after the evidence the Magistrate said he saw no fraud in the transaction, but an offence against the Act had been committed, and he imposed a fine of 10*s.*, and costs 2*l.* 4*s.*

HENRY GAINS, drug-store proprietor, Amblecote, was fined 1*l.*, and 2*l.* 4*s.* costs, at the same court for a similar offence, this case being undefended.

SWEET SPIRIT OF NITRE.

On January 16, at Wolverhampton, Walter Wood, grocer and provision-dealer, was summoned for selling sweet spirit of nitre stated to be 85 per cent. deficient in ethyl nitrite.

Evidence of purchase and the analyst's certificate having been given,

Mr. Willcock, for the defence, argued that there was no definite statement as to what standard sweet spirit of nitre could be kept at. The bottle in which the inspector had put the drug left a large space between the fluid and the cork, and that would account, he thought, for some deterioration.

Mr. Thomas Reade, wholesale and retail chemist, Wolverhampton, stated that he supplied the sweet spirit of nitre in December, 1901, in a tinted glass-stoppered bottle. Sweet spirit of nitre was one of the most difficult things with which a chemist had to deal, and he thought the Pharmacopœia minimum was not the minimum for all circumstances. The most careful chemist could not prevent evaporation, and the drug began to alter from the day of manufacture. In answer to the prosecutor, Mr. Reade said it was a question for the Legislature whether traders such as the defendant were the proper persons to sell sweet spirit of nitre. Mr. Willcock intimated that the defendant had stopped the sale of sweet spirit of nitre altogether. It was too difficult to deal with. The Stipendiary admitted that it appeared to be a difficult drug to deal with, but it must be sold very much nearer the strength than the nitre in the present case. A fine of 5*s.*, and 1*l.* 3*s.* 6*d.* costs, was imposed.

SPIRIT OF SAL VOLATILE.

MR. DAVID WILLIAMS, chemist and druggist, 100 Myddleton Road, Bowes Park, N., was summoned at Wood Green Petty Sessions, on Friday, January 16, for unlawfully selling spirit of sal volatile certified by the public analyst to be deficient to the extent of 24 per cent. in ammonia. Before the case had been called on, Inspector Bridge applied to the Bench for permission to withdraw the summons, on the ground that there was a clerical error in the copy of the analyst's certificate. He thought that this might be amended, but he preferred to withdraw the summons entirely. The Bench agreed to the withdrawal of the summons.

It was understood that the error mentioned was merely the writing of "grains" for "grams," but we learn that Mr. Williams had a complete answer to the case.

LIME-JUICE CORDIAL.

At Southwark Police Court on January 20, George Mence Smith, grocer, 124 Borough High Street, S.E., was summoned for selling lime-juice cordial containing, according to Dr. Tebb's certificate, 8 gr. of salicylic acid to the pint, a proportion which the analyst and the medical officer of health considered was injurious to health.

Mr. Bonsey, who defended, said that for the past twenty years salicylic acid had been largely used as a preservative for beverages, fruit, jam, &c. In this case the actual quantity was 2 gr. to the pint instead of 8 gr., because the lime-juice was not drunk as sold in the bottles, but had to be mixed with water. In a case heard at Westminster Police Court in 1895 it was decided that salicylic acid in orange-wine to the extent of 3½ gr. to the pint was not injurious; and in 1901, at Liverpool, it was held that salicylic acid in ginger-wine to the extent of 13 gr. to the pint was harmless. Salicylic acid was used to prevent fermentation. An adjournment was ordered for the attendance of witnesses for the defence.

Pharmacy Act, 1868.

AN UNREGISTERED CHEMIST FINED.

On Wednesday, January 21, in the Bow County Court, before Judge Smyly, K.C., the Council of the Pharmaceutical Society of Great Britain brought an action to recover a penalty of 5*l.* from Mr. J. W. Beresford, of 217 East India Dock Road, E., for selling a scheduled poison, he not being a registered chemist and druggist.

Mr. Vaughan Williams appeared for the Society, and called evidence.

George Steer, the first witness, stated that, on the instructions received from the Registrar of the Society, he went to 217 East India Dock Road and bought a mixture of opium and soap-liniment. Beresford served him, and there was no one else in the shop at the time. Witness subsequently handed the bottle to Mr. H. Moon, the Clerk of the Society, in the same condition as he received it.

Mr. Moon deposed to receiving the bottle and sending it by post to Mr. Tickle, of Exeter.

Mr. Tickle, on oath, said the analysis showed that the mixture contained opium.

Judge Smyly: Is opium declared to be a poison?

Mr. Vaughan Williams: Yes; it is scheduled. Mr. Williams then put in the register of chemists and druggists, which did not contain defendant's name.

Judge Smyly gave a verdict for the penalty claimed, with full costs.

NO PROPER LABELS.

At the West London Police Court on Wednesday, January 21, before Mr. Rose, Mrs. Maggie M. Watson, of Watson's Drug-stores, 39 Bramley Road, Notting Hill, was summoned at the instance of the Pharmaceutical Society for selling white precipitate without a proper label.

Mr. R. E. Vaughan Williams supported the summons, and a witness proved the purchase. On the label of the packet were the words "White precipitate—poison," no address being given.

Defendant explained that she could not deny the evidence, as she was not present at the time. The business was in the hands of a company, which was about to be registered. The arrangements would have been concluded before now but for circumstances which prevented them being carried out. It was not usual to send packages out without proper labels.

Mr. Rose remarked that one of the most important words—"Poison"—was on the label, and he had no doubt that the address would have been there but for the confused state of the business. It was most important that the requirements of the Act should be complied with, as a recent case had shown how desirable it was to be able to trace the place where poison had been purchased. He imposed a fine of 20s., with 2s. costs.

THERE was also a summons for a similar offence against Alfred J. Slack, of 142 Walmer Road, Notting Hill. Defendant pleaded guilty.

Mr. Vaughan Williams explained that in this case there were only the words "Precipitate—poison" on the label. Defendant said it was an oversight. He was using up some old labels, and cut off the address. Mr. Williams stated that defendant was recently fined for selling poison while being an unqualified person under the Act. Mr. Rose ordered defendant to pay a fine of 3l. and 2s. costs.

Bankruptcies and Failures.

Re PARK, MACFADYEN & Co., 24 Lime Street, E.C., West Indian Merchants (trading also as Park, Son & Co., 69 Wall Street, New York, and Turnbull & Co., Kingston, Jamaica).—The public examination of the three debtors in this case was heard at the London Bankruptcy Court on January 19, before Mr. Registrar Brougham. Accounts were lodged showing total liabilities 259,068l., of which 205,000l. is expected to rank, against assets valued at 134,079l. Their business consisted of making advances to sugar-planters and others in Jamaica, the export of goods both from London and New York to Jamaica and the West Indies, the working of estates in Jamaica, and running a general store there. The failure is ascribed to the firms' inability to recover sums locked up in advances to sugar-planters and others, to the short crops of the past five years, and to the wet season of 1901-2. Mr. E. S. Grey, Official Receiver, reported that one of the debtors had not yet come over from New York, and the hearing was adjourned. The following are amongst the creditors:—

	£	s.	d.
Arbuthnot, Latham & Co., London...	10,050	0	0
Brown, Shipley & Co., London ...	8,500	0	0
Cole, W. H. & Co., London ...	10,050	0	0
Kleincourt, Sons & Co., London ...	7,566	5	0
Merchant Banking Company (Limited), London ..	8,077	0	7
United Alkali Company (Limited), Liverpool ...	278	10	9

Re SAMUEL³ HALLIDAY, Northgate, Cleckheaton, Yorkshire, Chemist and Druggist.—On January 19 the first meeting of creditors was held at Bradford. No resolution was passed, and the affairs of the debtor were left to the Official Receiver to administer in the usual way.

Re HENRY WEMYSS FIELDEN ALLAN, lately carrying on business in High Street, Kirkcaldy, Chemist and Druggist.—Debtor appeared at the Kirkcaldy Bankruptcy Court on January 14. The public examination was heard some time ago (see *C. & D.*, January 3, page 20), and the solicitor for the trustee having stated that he had no further questions to ask, Sheriff Gillespie administered the statutory oath.

Re WILFRID LEAN, Evesham, Pharmaceutical Chemist and Aërated-water Manufacturer.—At the Worcester County Court on January 20, Judge Sir R. Harington heard an application for the discharge of this debtor, particulars of whose failure appeared in *THE CHEMIST AND DRUGGIST*, October 4, 1902, page 596, and November 8, 1902, page 777. The liabilities were estimated at 2,650l., and the assets at 2,170l., but the Official Receiver (Mr. Luke J. Sharp) now stated that no dividend had been paid to creditors because the principal assets had not been realised. These were the stock-in-trade, plant, and machinery incidental to the business of a chemist and mineral-water manufacturer, and any approximation to the debtor's estimate depended upon a sale being effected as a going concern. Although strenuous efforts had been made to find a customer, they had so far failed. The business was still being carried on, but it was quite probable that a loss, probably of upwards of 1,600l., would have to be faced. Debtor assigned various causes of failure—that he gave 300l. too much for the business, that he lost 200l. in realising the stock of grocery, and had had to incur loans to replace obsolete plant and provide special apparatus to compete with a manufacturer from a neighbouring town. But the cold summer last year was put forward as the "finishing stroke." The Official Receiver, in his report, recapitulated the history of the concern, and said that while he did not think it was discreet of the bankrupt to embark upon so large a business with so small a capital as 40l., it might, perhaps, be that the doubtful character of the assets was due to circumstances for which he could not justly be held responsible, and, on the whole, he did not think it necessary to submit that any offence had been committed under the penal clauses of the Bankruptcy Act. Debtor's books had been accurately kept. The Judge said he regarded the report on the case as very satisfactory, but if the debtor did not pay 10s. in the pound he had no power to grant a discharge except under special circumstances. Mr. New, for the debtor, submitted that there were special circumstances in this case, and that there was no opposition. The Official Receiver thereupon brought under the notice of the Judge the conditions under which, in the peculiar circumstances, a discharge could be granted. Sir R. Harington said debtor really did seem to be a victim of misfortune, having been made bankrupt by the weather, and, in granting the discharge unconditionally, observed that it was to the bankrupt's credit that as soon as he found himself in difficulty he adopted the proper course of calling his creditors together, instead of going on and involving himself further, as so many people did.

(From the "Edinburgh Gazette.")

SEQUESTRATION.

Re MRS. ADA STEERS or MILLER, residing at Sandy Lodge, Nairne, wife of Alexander Urquhart Miller, Chemist, Nairn.—Creditors will meet in the Royal Hotel, High Street, Nairn, on January 26, at 12 o'clock. The agent is Mr. Wm. Laing, solicitor, Nairn.

New Companies & Company News.

LECITHIN COMPANY (LIMITED).—Registered on December 23, 1902. Capital 10,000l., in 1l. shares. Objects: To acquire and turn to account the sole right to deal in and act as agents for Lecithin and products derived therefrom.

YOOL'S PATENT STOPPER COMPANY (LIMITED).—Capital 5,000l., in 1l. shares. Objects: To acquire certain patents, and to carry on the business of manufacturers of and dealers in the stoppers for infants' feeding-bottles, makers of feeding-bottles and tubes and parts thereof, &c. The first directors are not named. Qualification, 100l.

DUBLIN GLASS-BOTTLE COMPANY (LIMITED).—Registered in Dublin. Capital 20,000l., in 1l. shares (4,000 preference). Objects: To acquire and carry on the business of a glass-bottle maker now carried on by B. W. Campbell at the North Lotts Sheriff Street, Dublin, under the style of the Dublin Glass-bottle Company. The first directors are B. W. Campbell, W. J. Forster, and T. E. Marshall. Qualification, 500l. Remuneration, 150l. each per annum. Registered office, 46 Upper Sheriff Street, Dublin.

NORSEMAN PROPRIETARY COMPANY (LIMITED).—Capital 1,000l., in 1l. shares. Objects: To carry on the business of wholesale and retail chemists and druggists, vendors of patent medicines and druggists' sundries, &c. The first subscribers are

E. Angus, 188 Albion Road, N., foreign correspondent; G. Penfold, 13 Knebworth Road, N., clerk; A. E. Davison, 30 Prestage Street, Poplar, engineer; G. W. Basford, 8 Waverley Terrace, Alexandra Park, N., accountant; F. H. Spotswood, 60 Pekin Street, Poplar, gentleman; W. M. Cutter, 6 Dover House, Myatt's Park, S.E., typist; and E. Ellis, Mandeville Road, Enfield Wash, registrar. No initial public issue. The subscribers are to appoint the first directors.

AGUILLON (LIMITED).—Capital 13,000*l.*, in 1*l.* shares. Objects: To manufacture and deal in certain products, known as "Merveilleuse," invented by J. Aguillon, of Paris, for curing sores and other maladies of horses and human beings, and to carry on the business of chemists, druggists, patent-medicine proprietors, &c. The first subscribers are W. H. Growse, 706-9 Salisbury House, E.C., secretary; J. H. Mason, 111 Pearcecroft Road, Leytonstone, accountant; J. H. Todd, 15 Strand, W.C., advertising agent; A. S. Elwood, 20 Copthall Avenue, E.C., gentleman; A. G. Willoughby, 54 Malmesbury Road, Bow, clerk; Miss M. Eames, 15 St. Laurence Road, Brixton, S.W.; and J. H. Ridge, 135 Minara Road, Catford, clerk. No initial public issue. J. Aguillon is the managing director, and may nominate one other director. The subscribers are to appoint the remainder. Qualification, 100 shares. Remuneration of ordinary directors, 50*l.* each per annum; of chairman, 100*l.* Registered office, 706-9 Salisbury House, E.C.

THOMAS POWELL (LIMITED).—Capital 20,000*l.*, in 1*l.* shares. Objects: To acquire and carry on the business of manufacturers and vendors of patent medicines, drugs, surgical instruments, and druggists' sundries, &c., carried on at 1 Albion Place, Blackfriars, S.E., by "Thomas Powell (Limited)," and to adopt an agreement with the said old company and its liquidator. The first subscribers are F. W. Powell, 1 Albion Place, Blackfriars, S.E., managing director; H. G. Powell, 1 Albion Place, Blackfriars, S.E., gentleman; B. W. Powell, 1 Albion Place, Blackfriars, S.E., secretary; Miss L. M. Powell, Oak House, Crawley, Sussex; Miss W. B. Powell, Oak House, Crawley, Sussex; C. B. Powell, Oak House, Crawley, Sussex, gentleman; and H. Stone, 1 Albion Place, Blackfriars, S.E., clerk. No initial public issue. The number of directors is not to be fewer than three nor more than six; the first are F. W. Powell, B. W. Powell, and T. A. Platt. Qualification, 250*l.* Remuneration as fixed by the company. Registered office, 1 Albion Place, Blackfriars Bridge, S.E.

BLUNDELL, SPENCE & CO. (LIMITED).—The report of the directors states that, although sales have been well maintained during the past year, adverse markets, especially in linsed oil, have again so affected profits as to prevent the board from recommending a higher dividend than 6 per cent. per annum on the ordinary shares, less tax, payable half on February 24, the remainder on August 25, 11,411*l.* being carried forward, as against 15,316*l.* last year.

Deed of Arrangement.

Evans, William James (trading as Evans & Son), 26 Albany Road, Cardiff, drug-store proprietor. Trustee, Charles E. Dovey, Gordon Chambers, Queen Street, Cardiff, chartered accountant. Dated, January 12; filed, January 17. Secured creditors, 55*l.*; liabilities unsecured, 257*l.* 7*s.* 1*d.*; estimated net assets, 135*l.* 10*s.* 8*d.* The following are scheduled as creditors:—

	£	s.	d.
Duck & Son, Cardiff	...	...	...
Fletcher, Fletcher & Co. (Limited), London	...	...	...
Horner & Son, London	17	0	0
Renson Manufacturing Company, London	16	0	0
Sanger, J., & Son, London	15	0	0
Virol (Limited), London	85	0	0
	14	0	0

Gazette.

Partnerships Dissolved.

Wells, M. H., and Watkins, G. A., under the style of the Henry Wells Oil Company, Manchester, oil manufacturers and merchants.

Wood, W. J. H., and Mason, F. W., under the style of Wood & Mason, Boston, Lincolnshire, surgeons and apothecaries.

The Bankruptcy Acts, 1883 and 1890.

ADJUDICATION.

White, John, Rotherham, Yorkshire, chemist,

Business Changes.

MR. C. PARKER, chemist, is opening a business at 183 Upton Lane, Forest Gate, E.

MR. D. ROGERS, chemist and druggist, Bexley Heath, Kent, has retired, and his business has been closed.

MESSRS. J. EDWARDS & SON are opening a dispensing, photographic, and general cash drug-store at Farnham, Surrey.

MR. J. H. PRICE-BOND, chemist and druggist, has purchased the business of the late Mr. Jones at High Street, Merton, S.W.

MR. A. HIGGS, chemist and druggist, Richmond Road, Kingston-on-Thames, has closed his branch business at Market Place, Kingston-on-Thames.

MESSRS. CHARLES BEST (LIMITED), soda-fountain makers, have removed to more commodious offices and showrooms at 38 John Bright Street, Birmingham.

MR. H. WESTON, chemist, King Street, Ramsgate, has entirely refitted his pharmacy, and has put in a handsome double front in place of the old one, making his shop one of the finest in Ramsgate.

MESSRS. ANDERSON & VIRGO, chemists and druggists, have opened a fine new shop and dwelling-house in the Foregate, Worcester. It is built in the new line of frontage which is to be adopted in this part of the city in order to allow of a greatly needed street improvement.

MR. W. C. BAGSHAW, chemist and druggist, has opened a new shop opposite the Hyde Road Hotel, in Hyde Road, Manchester, in premises formerly devoted to confectionery. Mr. Bagshaw has pharmacies in Aston Old Road, Openshaw, Bradford, and elsewhere, and his latest venture is got up somewhat in the style adopted by the proprietors of the successful modern pharmaceutical businesses.

Chemists' Calendars.

The purse-almanac sent out by Mr. R. F. McCartney, pharmaceutical chemist, 9 The Diamond, Coleraine, is a neat production, and, as its name implies, of suitable size for carrying in the purse. Mr. McCartney in the preface emphasises the importance of his prescription-department.

Smith's Printing Agency, Hutton Street, Whitefriars, E.C., have hit upon the idea of a waistcoat-pocket calendar and diary for a quarter of a year instead of one to last the whole year. The twelve-month diary usually gets very dilapidated before the end of its term of office if carried in the pocket.

The calendar sent out by Messrs. Newball & Mason, manufacturing chemists, Nottingham, is in the shape of a gallon jar, and has on its front a monthly-tear-off calendar. The lettering on the jar is to the effect that "a sixpenny-pocket makes eight gallons of best botanic beer." The form of the calendar is a happy idea and an excellent advertisement at the same time.

The A. M. Todd Co. (Limited) send us their 1903 calendar. It consists of four large pictures, 17×13, of Nature's four elements as known to the ancient philosophers—Earth, Air, Fire, and Water—each element being represented by a beautiful woman. The calendar is a fine production, and contains nothing upon it in the nature of an advertisement, if we except the slight odour of peppermint which accompanies it.

"A village-chemist's almanac" is how Mr. Llewellyn Williams, chemist and druggist, New Beckenham, designates the copy of his 1903 almanac which he sends us. It weighs $\frac{1}{2}$ -lb., so that, by comparison, a town-chemists' almanac should be about the size of the Post Office London Directory. The almanac is well got up, and the advertising matter is attractively presented. The notes on common ailments are well taken advantage of to introduce the specialities, of which Mr. Williams seems to have almost an unlimited supply.

Trade Notes.

WE understand that Messrs. Ayrton & Saunders, of Liverpool, supplied the fittings of Mr. J. W. Bennie's pharmacy at Polmont, which was referred to in the *C. & D.* last week.

MESSRS. ALFRED LAWRENCE & CO., wholesale chemists and druggists, 17 Patrick Street, Melbourne, act there as agents for firms in this country who do business in drugs, chemicals, and patent medicines.

MESSRS. GRIFFITHS BROTHERS & CO., paint, varnish, and enamel makers, Bermondsey, S.E., have purchased Daniel Judson & Son's dye and gold-paint business, which they will continue with Mr. S. J. Hann as manager.

MESSRS. ROSS (LIMITED), manufacturing opticians, 111 New Bond Street, W., inform us that the Rochester Optical and Camera Company, of Rochester, N.Y., have been appointed their agents in the U.S., and will hold a stock of Ross lenses.

MESSRS. VOIGTLÄNDER & SOHN, Brunswick, have appointed Mr. F. G. Phillips, 12 Charterhouse Street, Holborn Circus, sole trade-agent for the sale of Voigtländer lenses, cameras, and accessories. Inquiries for these goods should be in future addressed to Mr. Phillips.

A "PRICE-LIST OF FINE PRODUCTS" has been published by Messrs. Burroughs Wellcome & Co. It extends to 125 pages, of which eighty-seven are devoted to the firm's "tabloid" products, chemicals, chests and cases, "Kepler" malt-preparations, and other specialties. Of the prefatory pages, twenty-four are occupied by articles on "The Substitution Question."

THE PHARM. AND PHOTO-CHEMICAL COMPANY, 60 Graham Road, Dalston, N.E., has been writing to houses connected with the drug-trade for samples. The representative of one house, on calling, found the address to be a private house, and no company is carried on there. He was informed by one of the inmates of the house that the man who is the "company" occupies the top front room, and what he wants is the samples.

CASCARA-SAGRADA TABLETS may follow the big rise in the crude drug, which is at present one of the principal features of the market, but the Standard Tablet Company, of Hove, tell us that they are still holding open the special offer of sugar-coated cascara-sagrada tablets to which we referred a month ago. The company are one of the largest holders of cascara sagrada, and consequently are not at present affected by the phenomenal rise in the bark, so that their quotation for the tablets of 1s. 8½. per doz. bottles of twenty-five holds good.

PINAKOL DEVELOPER.—Messrs. Meister, Lucius & Brünig (Limited), 51 St. Mary Axe, E.C., hand us samples of Pinakol Salt N and Pinakol P—new developing-agents—for trial. Pinakol Salt N is a clear, colourless solution intended to replace the alkali of organic developers, Pinakol P being the solution combined with pyrogallol. We have developed a few plates with the latter solution and find it answers well. The negatives produced are of the black colour which amateurs are so fond of, and the solution can be used until exhausted without staining the negatives.

NEW SUNDRIES.—We inspected the other day a sample-case of new sundries which Messrs. Robert Ferber & Co., 195 Southwark Bridge Road, S.E., are introducing. To describe them all is impracticable in limited space, but we may say that they were all attractively got-up, and will fill niches in the stock-shelves and cases. First was a waterproof toilet-bag to hold tooth- and nail-brushes, soap, and hair-brush and comb, in check and Paisley plaid pattern finish (16s. 6½. per dozen); next, a series of washing pads and gloves, with loofah or sponge, and Turkey towelling, 3s. 9½. to 5s. per dozen; also sanitary washers in pretty patterns of Turkey towelling, at from 9s. to 35s. per gross: these look like little toilet-mats, but are for keeping at the dressing-table to use when a large towel is not required. They look slightly in the drapery line, but some chemists will have customers for them. The sample-case was strong in loofah-products, including a range of bath-slippers, also a series of

socks made of loofah and other materials, besides a new kind of bath-room slippers made from a rush, and prettily and comfortably lined. Amongst packed specialties we noted the Imperial fragrant charm, daintily carded; amber corn-jelly, bay-rum cream and foot-cream in tubes; and there was a new style of box made of insoluble gelatin, in various colours and egg-shaped, or like a puff-box, the price being 5s. per 100. The firm publish a complete price-list of their packed goods and specialties, as well as of capsules. Some time ago we mentioned that Mr. A. J. Palethorpe had perfected a capsule-making machine, which he offered to the trade. We understand that he has now sold the exclusive rights in the use of the machine to this firm, which he represents "on the road."

Personalities.

A NEW novel by Mrs. Fred Reynolds is announced by Messrs. Hutchinson & Co. The title is "The Man with the Wooden Face."

MR. CHARLES HUXTABLE, pharmaceutical chemist, has taken up an appointment as laboratory-manager and analyst to Messrs. W. G. Barrett & Co., Dublin.

SIR MICHAEL FOSTER, M.P., has decided finally to retain his seat in the House of Commons as representative of the London University. He will sit on the Liberal side.

MR. ANDREW PEARS has purchased the house of Gilbert White, author of "The Natural History of Selborne," in the beautiful village of Selborne, about four miles from Alton, Hampshire. The house is called "The Wake."

MR. H. W. MACLEAN, who has been appointed to visit Persia on behalf of the Commercial Intelligence Committee of the Board of Trade in order to inquire and report as to the openings for British trade in that country, left England for Persia on January 16.

MR. ROBERT DRANE, President of the Cardiff Pharmaceutical Society, has presented to the public museum in that town twenty-seven valuable examples of Old English pottery for the proposed representative collection which the Cardiff County Council are now forming.

MR. F. A. UPSHER SMITH, pharmaceutical chemist and Pereira medallist (1898), who has been engaged with Professor H. G. Greenish in pharmacopœial-research work, has accepted an appointment as chemist to Messrs. Robinson & Sons (Limited), surgical-dressing manufacturers, Chesterfield, and entered on his duties this week.

MR. GEORGE RICHARDSON, chemist, Hexham, whose death we reported last week, served his apprenticeship with Messrs. Bell & Riddle, Market Place, Hexham. He was unmarried. The funeral took place on Thursday afternoon, January 15, and the following local chemists attended—viz., Messrs. Geo. A. Dixon, J. P. Gibson, John Gibson, F.C.S., T. E. Riddle, David Low, Wm. Pattinson, N. W. Robson, Macdonald, and L. Coulston (the two last named employés of deceased).

THE Mayor of Torquay (Mr. J. Taylor, chemist and druggist) is devoting himself very whole-heartedly to the duties of his office. Great demands are made upon his time and energy, but he is rising equal to them. At the Hearts of Oak dinner on Wednesday night he said the name "Mayor" for the chief magistrate of a town like Torquay was a misnomer. It would be more fitting to call him a horse or a donkey, so much was put upon him. His Worship is not exactly a stout man, says a local paper, but the wear and tear of office has removed superfluous flesh. During the first month of his Mayoralty he has lost, he says, an inch round the waist.

"ADVERTISING" for January contains some particularly interesting articles perhaps the most interesting being a five-page article on the P.A.T.A. based on an interview with Mr. Glyn-Jones. There are plenty of advertising ideas in the number, which is published at 6½. at 100 Fleet Street, London, E.C.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

Chemists as Postmasters.

SIR,—I was glad to see an outspoken expression of opinion in last *C. & D.* from an ex-sub-postmaster. Were I to go into my experiences as I would desire, I should occupy two or three columns at least. There is no doubt at all that an entirely mistaken notion exists in the public mind as to the advantage of holding a sub-office. The man who becomes a sub-postmaster practically, in ninety out of one hundred instances, signs away his liberty. His hours are not less than twelve daily, and in the country thirteen or fourteen, with two to four on Sunday. The allowance (5s. or 7s. 6d. per week) for assistance in altogether inadequate, and has therefore to be supplemented, thereby reducing the sub-postmaster's own meagre allowance. As a specimen of that allowance I may mention that he is paid 1 per cent. on the sale of stamps, so that, supposing he sells 500l. worth per annum, he receives the enormous sum of 5l. Think of the number of transactions covered by that, and the giving of change, with accompanying risk of loss. Handsome, is it not? He is granted a fortnight's leave at his own expense (providing an approved *locum*), he must not be absent one night without leave from his head postmaster. He has no allowance for sickness, no pension to look forward to, and must pay his own rent, firing, lighting, and other items. He has to bear badgering from the public over lost or delayed letters, has an enormous amount of official correspondence, together with a great number of "returns" to furnish from time to time, and his own business generally has to play a secondary part, especially during Christmas pressure, &c.; for often he finds his customers will not wait whilst some postal intricacy—say, the forwarding of a foreign parcel—is being explained to some obtuse individual on the other side. Altogether the sub-postmaster's lot is not a pleasant one, and I should advise anyone contemplating taking on this side-line to consider well, and say emphatically "Don't." Better to devote the whole of your energy to your own business than squander it between the two.

Yours truly,

January 19.

COUNTRY SUB. (191/9.)

SIR,—I see in this week's issue a short article headed "A Chemist's Experience as a Postmaster." You suggest that perhaps other sub-postmasters may have something to say, and as my experience has been very different from Mr. Gibson's, I venture to submit the following account of it.

A shop which I purchased had a post-office carried on in it, and I applied for the sub-postmastership. The authorities offered me 150l. salary, and stated that the various commissions were estimated to produce 140l., making 290l. in all, the total amount paid the first year was over 300l. The business increased, and from time to time I applied for and obtained increases of salary. I do not think that they ever spontaneously offer an increase, so that it is as well to apply pretty frequently, and on the slightest excuse. At the end of a dozen years they were paying me over 500l. a year, and I made an additional 25l. to 30l. by the purchase of stamps from the public. The out-of-pocket expenses were: (1) The cost of keeping three female clerks; (2) a few shillings a year for string, wax, and pencils; (3) an occasional pound or two for alterations to the office; (4) the losses or "shorts." These items would not together average 150l. a year, so that there remained 375l. (probably another 25l.) to recompense me for the use of part of the shop, and the slight supervision exercised.

It is possible that these figures may seem exceptionally large to some of your readers; I know personally at least four other offices where a still larger net income was made.

The conditions in my case were, on the whole, unfavourable. I was under 30 when appointed, had had but little business experience, and none whatever of post-office work, was hardly ever in the shop, and, indeed, for the first three years did not reside on the premises. I did not try to make myself competent in the work, and never assisted at the post-office counter. After thirteen years I sold the chemist's business and resigned the office. I went through the post-office figures with the proposed purchaser, and I have a suspicion that they may have influenced him in accepting my terms. Of course, not having any proprietary rights in an office, one cannot sell it. As there is no compensation if a post-office is removed, the authorities are anxious to prevent any payment, direct or indirect, being made for the post; still, provided the vendor makes it quite clear that the post-office is not in any way included in the sale, he cannot be blamed if the purchaser will persist in considering that the chances are largely in favour of his obtaining the post.

The remuneration depends upon the amount of work done. Roughly it is composed (1) of a commission upon telegrams, M.O.s, P.O.s, and savings-bank work, (2) of a salary which covers the sale of stamps, registrations, and parcels. I believe the salary is based upon the amount of work passing through the office, but they do not tell you, and I have never been able to ascertain the exact basis. The profit is chiefly made on telegrams and P.O.s. One is not allowed to "tout" for business, still there is sometimes a sudden increase in, say, the number of P.O.s dealt with daily, and, curiously enough, it may take place after the sub-postmaster has paid a visit to a friendly house of business. I always found the authorities fair in their dealings, and not so arbitrary as one would expect seeing that the Secretary is an autocrat. Certain books of rules are handed to you, which contain the whole duty of a postmaster, and you are not supposed to know anything that is not in those books. The difficulties and worries of the post do not come from the officials, but from the counter-clerks one engages one's self. My experience is that it is better to employ female clerks. A very good class of girls is now available, and in view of the large sums of money passing through their hands, too great care cannot be taken in the matter of references, the postmaster being responsible for all losses occasioned by any of his clerks. Given reliable clerks, and especially a trustworthy head clerk, the office ought to run smoothly, entailing but slight supervision on the part of the principal. Personally, I found the sub-office contrast most favourably with a chemist's retail business, both as to the amount of work and worry involved, and as a source of income.

Yours, &c.,

STAMPS. (192/18.)

"On the List."

SIR,—The *Anti-cutting Record* for December, 1902, was, perhaps, the most welcome number yet received. At last, after years of waiting, we have got a goodly number of really well-known makers "on the list." There have been indications of an increase in this direction for some time past, but when, in the additions for one month, we find such names as Keating, Warner, and Wright, along with the makers of two of the best-known brands of eau de Cologne, I think the members of the P.A.T.A. have good reason to congratulate themselves and continue to wave the flag till all can plainly see the way to the fold. Now is the time for the chemists of Great Britain to show a solid front, and to a man determine on at least two things—first, to become subscribing members of the P.A.T.A.; and, second, to do all in their power to establish for the profit-bearing articles "on the list" a precedence over similar goods whose makers have not seen fit to rise to the occasion. By so doing, sooner or later, other makers would discover a reason for following suit.

The writer of this letter proceeds to comment on Rankin's nit ointment, the wholesale terms for which are 3s. 11d. and 7s. 10d. per dozen, net cash, one month. He states that at the proprietor's own retail counter any person can obtain a single box of the 6d. size for 4d. and the 1s. size for 8d. How can the proprietor, he asks, expect the trade to buy at 3s. 11d. and 7s. 10d. per dozen net, and sell at 4s. and 8s. per box? No wonder substitution follows. The remedy is to place this article on the P.A.T.A. list, and give a living profit to the retailer. The writer further states that the ointment contains veratrine, but with the exception of "Poison"

on the label, no idea is given as to its composition. Should it not be in Part I. of the Poison Schedule? He then proceeds:—

My plea is that the makers of this and other well-known preparations should put away that big slice of independence they apparently so fondly cling to, and give us a legitimate profit, and then the chemists of Great Britain will not be slow to show their gratitude by always dealing on the square when such goods are asked for by their customers. May such well-known names as Keating, Warner, and Wright (and, may I suggest once again, Beecham?) be ever joining us until the scattered interests be safely folded, and the commonweal be every maker's desire, is my earnest and most sincere wish for the New Year.

Yours faithfully,

Bradford, January 20.

J. A. MITCHELL.

Cut-rates.

SIR,—One wet evening last week a servant came in wanting a 2s. 6d. tin of Savory & Moore's datura tatula. It was offered her at 2s. 3d., but she said the price she paid was 1s. 8d., and she was to go to the High Street to get it, but did not want to do so because it was so wet. Again, this morning an old customer stopped me saying he had taken his boy to a phrenologist, who advised him to give Scott's emulsion, at the same time telling him to get it at a certain shop, where the 2s. 6d. size was sold for 1s. 8d. Both the articles are listed by W. Edwards at 21s. 6d. In these circumstances can the proprietors be surprised if substitutions are offered and pushed?

Respectfully,

A COUNTRY CHEMIST. (185/6.)

A List of Protected Articles Wanted.

SIR,—I wish to draw attention to the growing nuisance of individual schemes and systems for price-protection. We have just prepared a new edition of our price-list, and were particularly careful about keeping to P.A.T.A. prices. We are, nevertheless, fairly inundated with letters from proprietors pointing out that we are selling below their minimum prices. There are now so many of these individual price-protection schemes, and frequently one does not hear of them after the first notification, that no wonder they are lost sight of. I venture to think that but for the "police work" done by some of the managers of one of our largest cutting firms, these private agreements would not stand for more than a week. It would be a great convenience if a list of these articles could be periodically given in the *C. & D.* I would impress upon the proprietors, however, that they could save chemists and themselves a lot of unnecessary trouble by putting their goods on the P.A.T.A. list.

Yours, &c.,

J. W. R. (194/2.)

[We shall be glad to receive postcard notices from proprietors of protected specialities.—EDITOR.]

Constituents of Lemon Oil.

SIR,—Messrs. Schimmel & Co., in their last semi-annual *Report*, take exception to many points in a letter written jointly by Mr. Burgess and myself for my late employers, and published in the *C. & D.*, May 24, 1902. They object to the statement that citronellal and phellandrene are absent from pure lemon oil, and mention that the former has been detected several times in the oil by various workers, although, apparently, never by themselves. Anyone who is familiar with the smell of citronellal or citronella oil could not mistake it if present in even a small proportion in lemon oil, and I should recommend Messrs. Schimmel to try a small addition to lemon oil, or the concentrated portion of it, so that they themselves may observe the distinction. I can only say, with regard to phellandrene, that, in conjunction with Messrs. Burgess and Page, a very systematic research failed to reveal its presence, and also that it is not indicated by the refractive index of any portion of lemon oil near its boiling-point. The refractive index of phellandrene is so high that this would give some indication of its presence. How Messrs. Schimmel managed to isolate this terpene as early as October, 1897, when in the previous April they had been able to "prove the absence of pinene" by their apparently "imperfect methods" I cannot understand, therefore I think the statement by Burgess and Child, that phellandrene and citronellal are absent from lemon oil, must stand until

proved wrong by someone who is not afraid to publish the full particulars of his methods. It is quite possible that previous workers had mistaken a mixture of citral, octyl and nonyl aldehydes as citronellal. In my opinion the most absurd claim in Messrs. Schimmel's *Report* is that methyl heptenone is present in lemon oil. They fail to see that the very method they describe for separating it is one which almost invariably decomposes pure citral, forming more or less of this substance, which gives the peculiar odour to lemongrass oil. Messrs. Schimmel state that they have searched in vain for a statement regarding the refractive index of lemon oil in our paper on "The Lemon-oil Industry," communicated to the Society of Chemical Industry in 1901, and they have apparently overlooked another statement therein, that "we had been able to prove the presence of the terpene, *levo-pinene*, also another terpene which we have not yet been able to identify, owing to the very small quantity." Messrs. Burgess and Page are still working on this matter, and I trust they will shortly be able to identify the terpene. At the time we had every reason to believe it to be camphene, but we did not care to hazard a guess, and remarked that we did "not think it impossible that *7-camphene* is perhaps also present in oil of lemon, in addition to *7-pinene*. The priority of the detection of the last-named hydrocarbon undoubtedly belongs to Messrs. Burgess and Child; the presence of camphene we hope to be able to make still more probable." Tilden, in 1877, suggested the probable presence of terpineol in lemon oil, and, from the nature of its scent and flavour, it is not at all improbable.

Yours faithfully,

J. F. CHILD.

34 Mincing Lane, E.C., January 19.

Another Pharmaceutical International Rugby Player.

SIR,—Referring to a paragraph on page 75 of your issue dated January 17, you call attention to the fact that Mr. J. H. Miles, of Leicester, is the only person connected with the drug-trade who has attained international honours in football. In correcting this I have great pleasure in calling attention to the fact that Mr. W. Llewellyn (Llwynypia, South Wales), the present captain of the London Welsh Rugby team, has on several occasions been chosen to represent "Gallant little Wales," and is, in fact, the holder of the record for the greatest number of tries scored in one match. I am also proud to call your attention to the fact that his name appears in the list of successful candidates at the Minor examination just ended—a slight proof that football and passing the Minor are not altogether incompatible.

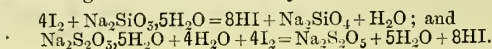
Yours, &c.,

ANOTHER WELSHMAN WHO PLAYS FOOTBALL. (189/59.)

Cymro (191/57), who also writes about Mr. Llewellyn, says he is "one of the finest wings seen on a football-ground."

In the Examination-room.

A correspondent writes:—It is not exclusively "At the Counter" that marvels of orthography, &c., make their appearance. Some of the freaks of the examination-room are, in their way, quite as interesting and as astonishing as those of the counter. Commonplace errors such as soluble, tartarate, lavender, maleable, metallic, milkyness, seperation, absence, chrystalline, and so forth, are, like the poor, ever with us; but many mistakes are met with which are not exactly commonplace, and are worth recording. Of the latter description the following may serve as a selection: Evolved, expirement, burette, tritration, standerdisation, affusion mixture, fushion mixture, phenyl phthalein, ridder, ignighted, charing, wrinsed, prepaired, flouiride, lense, celestrine, cromium. An interesting combination is "Experiment, observation, influence," occurring upon page after page of an analysis of the kind described by another writer as "qualitative." "Determinate the %" is a novel way of putting it; whilst all the troubles of volumetric analysis would be at once annihilated if every operator were at liberty to employ "a % solution." It is difficult to estimate what might have been the effect upon Schwarz of these two staggering "equations"—given exactly as written—showing the course of the reaction in his thiosulphate method for determining iodine volumetrically:—



Legal Queries.

Consult "The Chemists' and Druggists' Diary," 1903, before formulating Queries.

189/58. *Manager*.—Your query merely calls for a repetition of what we said last week. A chemist or anybody else can sell or receive a fee for a prescription for a specific ailment, but cannot recover the fee by legal process.

190/67. *W. L. B.*—The circular which you use in regard to artificial teeth holds out no special qualification on your part, nor does the displaying of a case of artificial teeth.

189/32. *Borax* endeavoured to register a trade-mark recently for Dr. Blank's medicine. The Comptroller required him to delete the name of Dr. Blank, on the ground that it was fictitious. "Borax" agreed, and wants to know if he may use the phrase on the labels "Sole maker, Dr. Blank & Co." [Certainly, the medicine paying stamp-duty.]

183/38. *Climax*.—(1) A chemist is entitled, before paying an assistant wages in respect to sick-leave, to make the assistant produce satisfactory evidence of illness—e.g., a medical certificate. (2) An employer is not compelled to give an assistant a reference; it is, however, a commonly recognised courtesy to other employers to give information when asked.

186/19. *G. D.*—Your astringent lotion should be stamped because the handbill strongly recommends it "to all who value the following advantages attending its use—viz., immunity from toothache." There is other language on the bill that involves liability. The label alone will pass because it shows the lotion to be a toilet-preparation. The other labels are for entire drugs, which are free from stamp-duty.

192/42. *Inquirer*.—An indenture is an agreement divisible into duplicate parts, so that each of the contracting parties may retain a part. In the case of apprenticeship-indentures the employer retains the first part and the guardian of the apprentice the second.

185/5. *Endsliak* recently had occasion to engage carmen for delivery of heavy goods. In the course of work one of the men had a leg broken by the fall of a barrel. This caused him to be laid up for twelve weeks. The contractor claims that "Endsliak" is liable under the Employers' Liability Act, being *pro tem.* the employers. Is this so?—[We do not think our correspondent is liable, because he is not engaged in a business in which he would be compelled to pay workman's compensation if the workman were one of his own servants. Moreover, it would probably be held that the work done by the contractor was merely ancillary to the business and came within the protecting proviso; but that is a more doubtful point.]

189/46. *O. P. Q.* puts the following query: A lets two shops to B on long repairing-lease. C takes one; B occupies the other. B's business fails, and sells his interest of lease to C. C lets B's shop to D, and sells his (C's) business to E. D has a lease drawn by a lawyer as between C and D. Would it be legal for C to copy D's lease and get it stamped, or is it obligatory for a solicitor to draw it as between C and E?—[We do not see the object of our correspondent doing legal work which should be paid for by someone else. The lessor (that is C in this case) is entitled to employ his own solicitor to prepare the lease, and the lessee pays for it. We should say that in these circumstances he would be wise to go to his solicitor. There is a penalty of 50*l.* payable by anyone other than a solicitor who prepares a deed for gain, but this would not apply if the lease were prepared by C gratuitously.]

186/14. *Spes*.—The use of such a title as "Dr. Blank's Tonic Liver-pills" is not an infringement of the Medical Acts so long as you do not trade as Dr. Blank.

4/30. *Malto*.—If the preparation is a food pure and simple, it is not liable to medicine-stamp duty. To judge from the label it is medicated, and, if so, the label makes it liable to duty. The mere fact that a medicine is called a food does not take it out of the Act.

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

160/55. *Nemo*.—The Preservative-powder for fruit and jam contains benzoate of soda and borax in about equal proportions. The report of the Preservatives Committee recommended the prohibition of the practice of adding preservatives to foods used by infants and invalids, but legislation to give effect may not take place for years.

226/20. *E. S.*—The Nit-pomade is made after such a recipe as that given in "Pharmaceutical Formulas," page 67.

143/66. *J. A.*—Dental Cement.—The sample you send is one of the zinc-phosphate cements. The powder consists chiefly of zinc oxide, the liquid being syrupy phosphoric acid. If you wish to try your hand at making dental cement, you will find the processes described in the *C. & D.*, June 28, 1902, page 990.

185/47. *Medicus*.—The National Anti-Vaccination League, 50 Parliament Street, S.W., is the Society that you require. Such addresses as these are given in THE CHEMISTS' AND DRUGGISTS' DIARY, from which we quote.

176/16. *Citadel*.—Incandescent Mantles.—The Welsbach mantle, patented in 1885 (15,286), consisted of a cotton fabric impregnated with a solution of the acetate or nitrate of certain rare earths. Changes have been made in the composition of the blended oxides, giving greater stability and increased light, and a collodion coating is now given to the mantles so as to render them easier of transport, but the same principle of a mantle heated over an atmospheric flame remains. The proportions of rare earths used at first were zirconium oxide 60 per cent., lanthanum oxide 20 per cent., yttrium oxide 20 per cent., or the yttrium oxide could be dispensed with, and the other two ingredients used in equal proportions. Mention is also made of ytterite earth and cerite earth, terms which include such elements as erbium, terbium, cerium, and didymium. Welsbach, in his patent 3,592 of 1886, gave other recipes for mixtures of earths, in which thoria, the best material for increasing the stability of the mantles, was an ingredient. Both these patents have expired.

175/50. *Loom*.—Dissolving Cotton.—Cotton can be separated from the horsehair by macerating the mixed materials in a solution of ammonio-cupric oxide, prepared by precipitating cupric hydrate in the presence of a little ammonium chloride and dissolving the well-washed precipitate in a 20-per-cent. solution of ammonia.

191/10. *W. R. B.*—Ferro-gallic Paper, which gives black lines on white ground on simply washing with water, is prepared from a secret process.

179/32. *Fisher*.—Oil of Peter or Oil of Rock is the name given to a semi-fluid natural tar. A factitious variety is made by mixing Barbados tar (1) and turpentine (20). The use of the article as a bait for fishing is new to us.

185/73. *Citadel*.—Cotton-seed Oil is Thickened for edible purposes with stearine, but a recent inventor uses an alkaline casein solution, which is claimed to give much better results.

191/35. *Glue*.—Most of the formulæ for Liquid Glue give an acid preparation, except the saccharate-of-lime recipe, which you say is unsuitable. We have no formula for an alkaline liquid glue.

176/19. *Cotton*.—To tint American cotton so that it will resemble the colour of Egyptian cotton we suggest experiments with weak solutions of cotton-brown A or cotton-brown N. The former colour is preceded by a soap bath, the latter by a salt bath. There are several varieties of cotton-brown dye, and each gives a different tint, according to the preliminary or subsequent treatment of the cotton.

191/26. *Soda Tart.*—**Cheap Dry Soap.**—We published a formula for this as recently as October 25, 1902, page 716. Please refer to that.

184/14. *Velox.*—We are not able to recognise the sample of crude grease you send.

184/70. *J. W. M.*—**Schist Oil** is a crude-tar product, schist being a bituminous marl. Barbados tar diluted with crude paraffin oil would approximate the oil required.

188.2. *W. G.*—The **Polishing-block** is made from fine kieselsguhr and powdered soap and tinted with oxide of iron. The block is formed by pressure.

27/6. *Pax (Paris).*—**Soldering-fluid.**—This is prepared by adding granulated zinc to commercial hydrochloric acid until all action ceases, the operation being conducted out of doors. The resulting fluid is filtered, and to each pint 2 oz. of sal ammoniac is added.

189/7. *Querist.*—(1) **Headache-powder.** The formula, a good one, given in the B.P.C. Formulary is as follows:—

Acetanilide	...	...	...	7 parts
Caffeine	...	...	...	1 part
Sodium bicarbonate...	...	...	...	2 parts

Dose: 3 to 5 gr.

(2) Phenacetin is considered one of the safest antipyretics. Eight grains is not an excessive dose; the B.P. maximum is 10 gr. (3) Aloe-and-asafetida pills are official, and if you refer to the Pharmacopœia you will see that the asafetida is to be in powder.

161/69. *Nemo.*—The **Eczema-ointment**, which gives excellent results, appears to be an oleate-of-mercury ointment. If you had told us which of the London hospitals it was obtained from we could probably have helped you further.

118/45. *Africa.*—The **Rheumatic Pills** yield us negative results on analysis, and the quantity you send is too small to permit of many experiments.

182/49. *H. B. R.*—(1) Formaldehyde is a marvellous preservative, but it is inadvisable to use it in oil of almonds and syrup of violets, as that preparation is only given to very young infants. Formaldehyde acts very energetically on enzymes, and would delay the digestion of milk in the child's stomach. (2) We have never noticed an ammoniacal odour develop in starch-powder when stored in a shop-round, but if at all damp we should expect a mouldy smell.

184/49. *J. M. E.*—**Greenhouse-fumigant.**—A formula which we have given before in this column is—

Crude nicotine	...	...	...	3ss.
Flowers of camphor...	...	...	...	5ij.
Proof spirit to	...	...	...	5iss.

Dissolve.

The preparation is a poison under Part I. of the schedule, and should be carefully labelled.

178/23. *Spes.*—You should consult a surgeon in regard to the nasal polypi. It is not a matter upon which we can advise.

172/2. *A. D.*—If you send a penny stamp to any of the chemists you name they will likely send you a copy of their almanac.

179/72. *Yorks.*—**To Exterminate Bugs** in a house the following method is effectual if systematically carried out. The paper should first be stripped off the walls of each room, and every crevice dressed with a solution of ung. hydrargyri ʒij. in ol. terebith. ʒxx. by means of a feather or brush. The next step is to fumigate with sulphur, and let the room remain closed for two days. The room is then well ventilated, the woodwork scrubbed and painted, and the walls repapered. It is not always thought necessary to remove the wall-paper, but in cases where the walls are cracked it must be done, as the bugs find a lodgment in the walls as well as the floors.

184/72. *Globulus.*—The **Tomato-sauce** formula evidently contains too little pulp, or too much vinegar, whichever way you like to put it. The quantity of tomatoes should be increased at least fourfold, or a proportion of the cheaper apple-pulp added. With an increased proportion of pulp the vinegar will not separate.

Information Wanted.

190/58. Where can Irish moss gelatin in flakes be obtained?

190/49. Present address of the makers of "Ollapearly" tooth-powder.

188/58. Where can Giraud's shampoo-powder and Swan's freckle-cream be obtained?

Coming Events.

Secretaries should send us notices by Wednesday of each week.

Tuesday, January 27.

Royal Photographic Society of Great Britain, 66 Russell Square, W.C., at 8 P.M. Mr. T. Thorne Baker will read a paper entitled "Some Physical Considerations of Photography," and Mr. V. C. Driffild one entitled "Control of the Development Factor and a Note on Speed-determination." *Bradford Chemists' Association*, Royal Hotel, Darley Street, at 9 P.M. Mr. J. G. Brigham will read a paper on "Urine-analysis."

Wednesday, January 28.

Newcastle-on-Tyne Chemists' Association. Meeting at Gateshead. Subject for discussion: "Local Organisation," introduced by Mr. G. F. Merson (President).

Edinburgh Chemists', Assistants', and Apprentices' Association, 36 York Place, at 9.15 P.M. Open meeting, conducted by Mr. W. B. Cowie. Papers will be read on "Germination of Monocotyledonous and Dicotyledonous Seeds" and "The Preparation of Liquor Magnesii Carbonatis."

Manchester Pharmaceutical Association. *Conversazione* in the Medical School, Owens College, at 7. The President (Mr. G. S. Woolley) will receive visitors from 7 to 7.30. Besides the musical programme there will be exhibitions of materia-medica specimens in the pharmaceutical laboratories, lantern-lectures, and x-ray demonstrations.

Western Chemists' Association, Westbourne Restaurant, Paddington, W., at 9 P.M. Smoking-concert. The President (Mr. J. W. Bowen) will be in the chair.

Public Dispensers' Association, St. Bride's Institute, Ludgate Circus, E.C., at 5 P.M. The new President, Mr. T. H. W. Idris, will be present. Officers are to be elected for 1903, the alteration of Rule 7 discussed, and the annual report presented.

Cardiff Chemists' Association, Park Hotel, at 6.30 P.M. Annual dinner. The guests will include the Mayor of Cardiff and Mr. R. A. Robinson, L.C.C. Tickets, 6s. 6d. each, can be had from Mr. A. J. Bellamy, 61 Paget Street, Grangetown, Cardiff. The new President of the Association will be installed at a meeting held for that purpose at 4 P.M.

Chemists' and Druggists' Society, Ireland. Annual musical evening in the Assembly Hall, May Street, Belfast, at 8 o'clock. Sir James H. Haslett, M.P., will preside.

Thursday, January 29.

Barnsley Chemists' Association, Royal Hotel. Ordinary monthly meeting.

Midland Pharmaceutical Association, Mathematic Theatre, the University, Birmingham. Mr. J. F. Liversidge will read a paper entitled "The Use of the Slide-rule in Pharmacy."

Chemists' Assistants' Association, 73 Newman Street, W., at 9 P.M. Mr. Wm. Garsed will read a paper on "The Relation between Chemical Constitution and Physiological Action illustrated by Familiar Drugs."

Saturday, January 31.

London College of Chemistry. Annual dinner and distribution of prizes at the Venetian Chamber, Holborn Restaurant, W.C. *Inter-Pharmacy Football League*. London v. Muter's College.

The annual Junior Pharmacy Ball is to be held in the Portman Rooms on February 25, 1903. Mr. Percival Trick, Salisbury House, London Wall, E.C., is the Hon. Secretary.

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C.: January 22.

THERE are few alterations in values to report this week, business in most quarters being dull. A slight reduction is announced in quicksilver, but not sufficient to warrant a change in mercurials. A not unexpected advance has taken place in santonin, as the manufacture of this article is now practically a monopoly. Citrate of lithia has also been reduced, bringing prices more in unison with those of the carbonate. Cod-liver oil is a subject of much discussion, and spot prices are again higher. Present prospects point to another dear season for 1903, but there is a general desire to wait developments, and the buying is mostly for current requirements. German potato-spirit is very firm, and prices on the Continent show a fractional advance. Morphine is steady and in good demand, while opium remains firm. Both citric and tartaric acids are very firm, and there has been a distinct improvement in the demand. Quinine has been very quiet, the trade waiting the result of Amsterdam bark-sales to-day. An auction of first-hand drugs has been held this week, and they are reported on page 135. The sub-joined table shows the principal changes in values during the week:—

Higher	Firmer	Easier	Lower
Ammonia sulphate Mace (W.I.) Nutmegs (W.I.) Oil, cod-liver Santonin Damiana	Alcohol (German) Oil, castor	Aloes (Cape) Benzoin (Sumatra) Cardamoms Ergot	Elemi Ipecacuanha (Cartagena) Lithia-citrate Quicksilver Quillaia

Heavy Chemicals.

The general conditions of the heavy-chemical market remain without material change from those indicated in recent reports. There is, perhaps, rather more activity in demand apparent both on home and export account, and this is the case at all main centres. Values all round keep steady, and where there are any changes they are mostly in an upward direction.

ALKALI-PRODUCE.—All main products are moving fairly well at unchanged rates. Shipments of bleaching-powder are good, and for new business higher figures are being held out for.

SULPHATE OF AMMONIA, although rather quiet, steadily maintains a firm tone with regard to prices for both prompt and forward. Beckton (January-April), 12*l.* 10*s.*; Beckton terms, 12*l.* 6*s.* 3*d.* to 12*l.* 7*s.* 6*d.*; London, 12*l.* 7*s.* 6*d.* to 12*l.* 8*s.* 9*d.*; Leith, 12*l.* 7*s.* 6*d.*; and Hull, 12*l.* 6*s.* 3*d.* to 12*l.* 7*s.* 6*d.*. Exports from Leith last week, 340 tons.

BICHROMATES OF POTASH AND SODA are in moderate request, but values show no improvement on recent low rates. Bichromate of potash, English and Scotch deliveries, 3*d.* per lb., less 4 per cent. Glasgow; for export, 2½*d.* per lb., f.o.b. Glasgow and net. Bichromate of soda, English and Scotch deliveries, 2½*d.* per lb., less 4 per cent. Glasgow; for export, 2*d.* per lb., f.o.b. Glasgow and net.

RECOVERED SULPHUR.—In brisk request, and owing to scarcity value now runs 5*l.* 5*s.* to 5*l.* 10*s.* per ton, in bags, f.o.r., and is steady thereat.

MAGNESIUM SALTS continue in steady demand, and prices are well maintained. Chloride, 62*s.* 6*d.* to 67*s.* 6*d.* per ton; magnesium

sulphate (Epsoms), 62*s.* 6*d.* to 65*s.* per ton, f.o.r., in bags; carbonate of magnesia, 37*s.* 6*d.* to 40*s.* per cwt.

LEAD COMPOUNDS are in good request and prices are firm, with advancing tendency. White acetate of lead, 25*l.* 10*s.* per ton, less 2½ per cent. Glasgow; brown acetate of lead, 17*l.* per ton, less 2½ per cent. Glasgow; nitrate of lead, 22*l.* 10*s.* per ton, less 2½ per cent. Glasgow.

Liverpool Drug-market.

Liverpool, January 21.

CASTOR OIL.—The clearance of the quay after the arrival of the s.s. *Craftsman* has led to a firm feeling in the market, and now 2½*d.* to 2¾*d.* per lb. is asked for good seconds Calcutta in store. First-pressure French is available at 2¾*d.* to 2½*d.* per lb., but the quantity available at the former figure is getting into very narrow compass.

TURPENTINE continues to be in good demand, at 43*s.* per cwt. **WAX (BEES').**—The sale of 2 tons Chilian is reported at 7*l.* 5*s.* per cwt., and nothing is available on the market now under 7*l.* 10*s.*

AFRICAN GINGER is still quoted at 46*s.* per cwt. for the remainder of last season's crop.

GUM ACACIA.—Ten serons of good Soudan sorts have been sold at 3*s.* per cwt., and 5 serons of glassy gum at 30*s.* per cwt.

CHILLIES (SIERRA LEONE).—Sixty seven bags of new crop, recently arrived, have been sold at 47*s.* 6*d.* per cwt.

CANARY-SEED.—The position is practically unaltered, importers being very firm at 75*s.* per qr. for both Barbary and Turkish. Higher prices are still looked for.

KOLA.—Seven bags of dry, in store, have been sold at 1½*d.* per lb.

ALOES.—Forty cases Curaçoa in store are reported as having changed hands at 15*s.* per cwt.

LINSEED OIL is quiet and slightly in buyers' favour, at 26*s.* to 28*s.* 6*d.* per cwt.

GRAINS OF PARADISE.—The market has been cleared of all the cheap lots offering, and now 47*s.* 6*d.* per cwt. is the lowest for good bright.

QUILLAIA-BARK, owing to arrivals, is now quoted at 18*l.* to 19*l.* per ton, according to quality.

German Drug-market.

Hamburg, January 21.

Our drug-market shows a fair business, and a good demand for several articles.

CAMPHOR (REFINED) shows extreme firmness, and an advance is very probable. Refiners' price is still 425*m.* per 100 kilos.

CASCARA SAGRADA is quoted 115*m.* per 100 kilos., spot, and stocks are in a few strong hands.

CONDURANGO-BARK is rather firmer, after some cheap sales, at 95*m.* to 98*m.* per 100 kilos.

KOLA is getting scarcer here, and prices are advancing. Present quotations are 75*m.* to 100*m.* per 100 kilos., according to quality.

ERGOT is quiet, Spanish being quoted 285*m.* and Russian 290*m.* per 100 kilos.

IPECACUANHA.—*Cartagena* is quoted 10*m.* per kilo., and *Rio*, in second hands, at 14*m.* to 14½*m.*, first hands quoting 16*m.* to 18*m.* per kilo.

MENTHOL, for spot delivery, is firm at 57*m.* per kilo.

JAPANESE WAX is scarce here, 110*m.* to 115*m.* per 100 kilos. being asked for spot delivery.

CARNAUBA WAX is firm, at 112*m.* to 175*m.* per 100 kilos., according to quality.

SENEGAL (WESTERN) is excited; spot price is now 825*m.* per 100 kilos., whilst New York quotes 875*m.*, and has little to offer.

OILS (FIXED).—Castor is tending firmer, owing to higher prices of seed; first-pressing, in barrels, on the spot, is quoted 45*m.*, and forward delivery 43½*m.* per 100 kilos. Cod-liver is very firm, non-congealing oil being offered at 195*m.* per barrel. Linseed, on the spot, is very scarce.

OILS (ESSENTIAL).—Star-anise is firmer, at 10½*m.* per kilo. Peppermint (HGH) is quoted 20*m.* per lb., and Japanese is firm at 23*m.* to 24*m.* per kilo.

ACID, TARTARIC, is very firm, and in good demand at 11*l.* per lb. for foreign for prompt delivery, but practically nothing is offered "forward" at this price. English is quoted 11½*d.*, and a large business has been concluded.

ALCOHOL.—German potato-spirit is very firm, and prices have advanced ½*d.*, say ¾*d.* per proof gal. Agents quote druggists' quality (56 and 68 o. p.) in contract quantities at 7*d.* net per proof gal., delivered in bond in casks or drums.

CASCARA SAGRADA is quiet but firm at 60*s.* per cwt., on the spot.

COCOA-BUTTER.—The auctions to be held at Amsterdam on February 3 will consist of 80 tons Van Houten's, 40 tons

Bensdorp, 14 tons Helm, 13 tons de Jong, 6 to 7 tons Mercurstaaf, and 3 tons foreign brand.

COPPER SULPHATE is firm at from 17*l.* 10*s.* per ton to 19*l.* 10*s.*, according to brand.

CREAM OF TARTAR is very firm at 80*s.* to 81*s.* per cwt. for B.P. powder, and 77*s.* to 78*s.* for 95 per cent.

DAMIANA-LEAVES are higher at 6*l.* per lb. net, c.i.f.

GAMBIER.—Small spot sales of fine *Cubes* have been made at 41*s.* per cwt.

GUM CHICLE.—The exports of gum chicle from Mexico during 1901 were 3,881,260 lbs., valued at 116,049*l.*, showing an increase in quantity as well as in value over the previous year, when only 1,345,888 lbs., valued at 41,063*l.*, were exported. The price quoted in New York during the year varied between 27½*c.* and 39*c.* per lb. for that from Progreso.

INSECT-POWDER.—The following are current quotations: Open, 76*s.*, half-closed, 96*s.*, and closed 112*s.* to 130*s.* per cwt., c.i.f.

LIQUORICE-ROOT.—Good South European root is difficult to obtain, and very high prices are now asked. Decorticated foreign powder is also tending firmer.

LITHIA CITRATE.—A reduction of 1*s.* per lb. was made in *Citrate* last week, which now brings prices more into line with those of carbonate. *Crystals* of German make are quoted at 4*s.* per lb. net in small wholesale quantities, and 3*s.* 9*d.* for 2-cwt. lots.

MENTHOL.—The market is quiet at 25*s.* per lb. spot for Kobayashi, and 24*s.* for Yazawa brand.

MORPHINE is steady and in good demand at 3*s.* 10*d.* per oz. for hydrochloride in powder in contract quantities.

NUX VOMICA is scarce at 10*s.* 6*d.* per cwt. for fine.

OIL, ANISEED, STAR is quoted 4*s.* 3*d.* to 4*s.* 4*d.* per lb., spot.

OIL, BERGAMOT.—One agent quotes 10*s.* per lb., c.i.f., for finest.

OIL, CASTOR, is firmer, Hull make being quoted at 22*l.* per ton for firsts, and 19*l.* 10*s.* for seconds for prompt or January to June delivery, ex wharf London.

OIL, COD-LIVER, is one of the principal topics of conversation in wholesale circles this week, although the market is quiet generally. The business done is principally for oil on the spot, and it is reported that 205*s.* per barrel, and even 220*s.*, has been paid for 1902 oil, [ex] wharf. There is an offer of new Lofoten non-freezing oil in the market at 185*s.* per barrel, c.i.f., for March-April shipment, but buyers prefer to wait events before committing themselves for new oil. Other agents talk of 230*s.* to 250*s.* in the near future. Newfoundland oil offers at 4*s.* 9*d.* per gal. net. Under date of January 17 our Bergen correspondent writes that fishing has not yet commenced, but present indications show an improvement in the prospects, as the large shoals of seals are apparently leaving the coast again on their way to the ice-fields, where they have their breeding places. It is expected that by the beginning of February they will have entirely disappeared, after which it is hoped the cod will make its appearance. Although last year's oil is extremely scarce the value of best Lofoten non-congealing oil is still quoted 170*s.* per barrel, f.o.b. Bergen, but this price is quite nominal. In auction 10 casks of Newfoundland guaranteed non-freezing were limited at 180*s.* per cask, and 10 casks of "not guaranteed non-freezing" were taken out at 10*s.* per gal., the broker intimating he would "take a little less."

OIL, PEPPERMINT.—American GHG is firm at 20*s.* 6*d.* to 21*s.* per lb. spot, and Japanese dementholised (Kobayashi) is quoted 11*s.*, which figure has been paid. In auction Kobayashi dementholised was limited at 11*s.* per lb.

The *Oil, Paint, and Drug Reporter* is informed that the growers of peppermint, in order to prevent a recurrence of the overproduction which brought prices to so low a level a few years ago, have entered into an agreement to sell no roots. About 80 per cent. of the growers have signed the agreement thus far, and there will accordingly be few, if any, new growers during the coming year. This will tend to restrict still further the production of peppermint which, as has already been stated, has been greatly hampered by wet weather.

OPIUM.—There is a fair demand on the London market at firm prices, manufacturing *Salonika* descriptions having

changed hands at 9*s.*, Tokat seconds at 8*s.* 6*d.*, and ordinary Smyrna at 7*s.* 6*d.* per lb. spot.

SMYRNA, January 10.—The market is quiet, but holders are firm, not caring to make concessions, owing to the late severe frosts. We are of opinion, however, that we shall see lower prices if the present mild weather lasts. The sales amount to 20 cases, 10 of which were Yerli and selected rich Karahissar, bought by Youghourma makers for the Continent, at from 7*s.* 2*d.* to 7*s.* 8*d.* per lb. as to quality and conditions. The arrivals in Smyrna to date amount to 4,841 cases, against 2,937 cases at the same time last year.

CONSTANTINOPLE, January 16.—The past week's sales amount to 11 cases "druggists'" at 7*s.* to 7*s.* 4*d.*, and 15 cases soft at 8*s.* 7*d.* to 9*s.* 6*d.* per lb. The weather has set in very cold and snowy, and imparted a firmer tone to the market all round.

POTASHES are scarce, at 26*s.* to 26*s.* 6*d.* per cwt. for first American, and 27*s.* to 27*s.* 6*d.* for first Montreal; Pearl 40*s.*

QUICKSILVER.—A reduction of 2*s.* 6*d.* per bottle has been made by the importers, who now quote 8*l.* 12*s.* 6*d.*, at which price a large business has been done. The previous alteration in quicksilver was on January 6, 1902, when a reduction of 2*s.* 6*d.* took place. No change is contemplated in mercurials.

QUININE has been very quiet pending the result of the Amsterdam cinchona auctions. A few small sales have been made at 11½*d.* to 1*s.* per oz. spot, for German sulphate, the market closing on Wednesday with further buyers at the lower figure.

The exports of quinine from Java during November amounted to 46 cases, of which 32 cases were shipped to Japan, 12 cases to New York, and 2 cases to Singapore. From January 1 to November 30 the shipments have been

	1902	1901	1900	1899	1898
Cases ...	1,409	2,033	1,855	1,600	1,072

SAFFRON.—The tendency is still towards higher prices, agents quoting 30*s.* to 32*s.* per lb. net. It is reported that a large business, amounting to 800 kilos., has been concluded in Valencia during the past week at rising prices.

SANTONIN has been advanced 1*s.* per lb., makers now quoting 21*s.* 6*d.* net for small wholesale quantities, and 20*s.* 6*d.* for at least 2 cwt. in one delivery.

SEEDS.—Russian *Anise* slow at 16*s.* per cwt. Turkish *Canary* quiet at 72*s.* 6*d.* per quarter. Dutch *Caraways* steady at 22*s.* per cwt. *Linseed* is offering at 52*s.* per quarter for bold clean.

SHELLAC.—A steady trade has been done on the spot, fair second orange TN selling on a basis of 123*s.* to 124*s.* per cwt., and for May-July shipment business has been done at 116*s.* 6*d.*, c.i.f., for TN orange. Futures, after being firm during the early part of the week, closed barely steady. The sales since our last report include January delivery at 122*s.* to 124*s.*, February at 123*s.* 6*d.*, and May at 122*s.* 6*d.* to 123*s.*, June, 121*s.*

SPICES.—At auction on Wednesday bold native cut Cochin Ginger was bought in at 85*s.*, and medium and small at 60*s.* per cwt. Fair washed also was bought in at 35*s.* to 40*s.* per cwt. Jamaica sold at 37*s.* 6*d.* to 38*s.* 6*d.* per cwt. for ordinary dull. Japan is selling privately at 32*s.* per cwt.; the new crop is reported to be plentiful, and is being offered at 23*s.* per cwt., c.i.f. terms. *Zanzibar Cloves* rather easier at 4½*d.* per lb. on the spot, and at 4*d.* for June-August delivery. Good Nyassaland *Chillies* sold at 47*s.* per cwt.; ordinary dark stalky Zanzibar were held for 33*s.* per cwt. Good Nyassaland *Capsicums* off stalk sold for 41*s.* per cwt. *Cinnamon* sold at 9*d.* per lb. for pieces, and at 7*d.* per lb. for broken. Chips were bought in at 3½*d.* to 3¾*d.* per lb., and bark at 1*d.* to 1½*d.* per lb. *Cassia-tiginea* sold at 42*s.* per cwt. for false-packed, but fair selected was bought in at 46*s.*, and good at 53*s.* per cwt. Broken sold at 40*s.* per cwt. *Pimento* steady, the small lots offered sold at 2½*d.* per lb. for ordinary to fair clean. West India *Nutmegs* and *Mace* sold readily at ¾*d.* to 1*d.* per lb. advance. *Pepper* quiet, and lower to arrive for Singapore black, January-March shipment having been sold at 5½*d.* per lb. Penang was bought in at 5½*d.* to 6½*d.*, Alleppy at 6½*d.*, and Tellicherry at 6½*d.* per lb. Good Singapore white sold at 9½*d.* per lb., being cheap. Penang was bought in at 9½*d.* to 9¾*d.* per lb., and Siam at 9¾*d.* per lb.

THYMOL is offered at 6*s.* per lb. in 56-lb. lots.

TURMERIC.—The stocks of Bengal are now in small com-

pass, and 13s., spot, has recently been paid. At the auctions last week good bright Madras sold at 12s., and dull Coconada description at 10s. 6d.

WAX, JAPANESE.—Good squares are steady at 55s., spot.

London Drug-auctions.

TEN brokers offered new drugs to-day, but so "lean" were the catalogues that the sales were concluded in just over the hour, thus making a record so far as time goes. Needless to say little business was done publicly. Socotrine aloes sold steadily, and Cape were perhaps a shade easier. Sumatra benzoin was in large supply and in good demand at easier prices. Cardamoms were irregular and lower. Fine elemi sold cheaply, and there was a fair demand for dragon's blood after the sales. A parcel of Cartagena ipecacuanha was slaughtered, and Rio was neglected, importers being fairly firm. Myrrh quiet, and rhubarb unchanged. Sarsaparilla, senna, and beeswax were wanting. The following table shows the amount of goods offered and sold:—

Offered	Sold	Offered	Sold
Aloes—		Oil—	
Cape	30 ... 30	bay	1 ... 0
Socotrine	20 ... 20	citronella	6 ... 0
Ambrogrise	2 ... 0	cod-liver (Newf.)	20 ... 0
Balsam—		lime (W.I.)	1 ... 0
Copaiba	1 ... 1	peppermint (Jap.)	5 ... 0
"Balsam"	2 ... 0	rose (E.I.)	4 ... 0
Benzoin—		Orange-peel	6 ... 2
Sumatra	233 ... 61	Orchella-weed	10 ... 0
Buchu	13 ... 6	Rhubarb	38 ... 4
Cannabis indica	10 ... 0	Sarsaparilla—	
Cardamoms	274 ... 114	grey Jamaica ...	3 ... 0
Cascarilla	40 ... 5	Honduras	3 ... 0
Cocculi indicus ...	31 ... 0	Senega	6 ... 0
Colocynth	3 ... 0	Senna (Tinnevely) ..	11 ... 11
Croton-seed	79 ... 0	Spermaceti	5 ... 0
Dragon's blood	15 ... 2	Squills	10 ... 0
Dogwood-bark	12 ... 0	Strophanthus	2 ... 2
Elemi	3 ... 3	Tonka-beans	13 ... 0
Ergot	25 ... 0	Wax (bees')—	
Gum—		Bombay (yellow) ..	5 ... 5
acacia	2 ... 2	Calcutta (white) ..	13 ... 0
acroides	39 ... 0	Madagascar	1 ... 1
Honey (Jamaica) ...	18 ... 18	Morocco	18 ... 0
Ipecacuanha—		Mozambique	14 ... 4
Cartagena	27 ... 13	Nyassaland	3 ... 3
Rio (natural)	20 ... 0	Spanish (yellow) ..	14 ... 0
Kino	5 ... 0	(bleached)	5 ... 0
Lime-juice	2 ... 2	West Indian	1 ... 0
(conc.)	2 ... 2	Zanzibar	5 ... 2

ALOEES.—Cape were again easier, although the quality of the parcel offered to-day was not equal to that offered at the previous auction, only one lot (4 cases) consisting of fine bright hard, which sold at 41s.; good bright ditto brought 39s. 6d. to 40s., good seconds, rather drossy, 37s. to 33s., and dull and drossy seconds 33s. to 34s. 6d. per cwt. Of Socotrine, 20 kegs offered and sold readily at 72s. 6d. for good hard.

BALSAM, COPAIBA.—A case of opaque Cartagena sold at 1s. 6d. per lb.

BENZOIN.—In good demand. The feature of the auctions was the offering of a fairly large quantity of Sumatra benzoin, about 15 cases of which were of fine quality, which is scarce and wanted. These consisted of fine seconds, well packed, with small to bold almonds, and they were disposed of at 8l. 10s. per cwt. Good seconds, slightly false packed, sold at 7l. 10s., and good fair seconds 6l. 12s. 6d. to 6l. 15s.; very false packed, or thirds, sold at from 3l. 15s. to 4l. 7s. 6d. per cwt. There has been a fair demand for Sumatra description, and several lots have been sold privately immediately on arrival at the warehouses.

BUCHU sold steadily, 5 bales fair greenish round being disposed of at 1s. per lb., and yellowish at 11d.

CARDAMOMS sold at irregular but about 1d. per lb. lower rates. Ceylon-Mysore, good bold pale bright, were bought in, but 2s. 8d. was afterwards accepted privately; medium and bold pale sold at 2s. 4d.; bold medium pale, 1s. 8d. to 1s. 10d.; small and medium pale, 1s. 1d. to 1s. 2d.; very small pale, 11d.; brown splits and pickings, 10d. to 1s.; bold pale splits, 1s. 7d., and medium splits, 1s. 2d. to 1s. 3d. Decorticated seeds were rather easier, small selling in quantity at from 1s. 3d. to 1s. 4d., but for fine 1s. 5d. is wanted.

CASCARILLA.—Bright silvery quill sold at 65s. per cwt.

COLOCYNTH.—Three casks of small to medium rather dullish and broken apple, direct from Cyprus, were limited at 1s. 8d. per lb.

DRAGON'S-BLOOD.—In larger supply. Two cases of very seedy lump of good colour sold at from 8l. 10s. to 8l. 15s., and after the sale several other lots were disposed of privately.

ELEMI.—Three cases of fine pale white Manilla of excellent flavour sold cheaply at from 70s. to 71s. per cwt.

ERGOT is very quiet, and the tendency is easier for Spanish, of which supplies on the spot appear to be accumulating. It is possible to buy good sound Spanish at 1s. 3d. per lb. privately, although 1s. 4d. to 1s. 5d. was asked in auction.

GUM ARABIC.—Two cases of picked Trieste grain, slightly yellowish, sold at 90s. per cwt.

HONEY.—Eighteen packages Jamaica were offered, and sold at from 17s. to 18s. for fair brownish thick liquid to set, in barrels and cases.

IPECACUANHA.—Cartagena was about 3d. to 4d. per lb. lower compared with the last public sales, and 1½d. on the prices paid privately between the auctions. Thirteen cases, containing from 23 lbs. to 41 lbs. weight, were knocked down at 4s. per lb., quality being fair average. Of Rio, 20 bales were shown and bought in, 6s. per lb. being refused for fine bold, 6s. 3d. being wanted.

KINO.—For good black grain from Tellicherry 8d. per lb. was wanted.

LIME-JUICE.—Four packages of *Concentrated* from Dominica sold at 11l. 15s. per pipe.

OIL, BAY.—Genuine West Indian distilled from Tobago was limited, at 5s. 9d. per lb.

ORANGE-PEEL.—Bright palish thin-cut peel sold at 4d. per lb.

RHUBARB.—Unchanged. A few cases of medium and bold flat High-dried, with three-quarter good pinky fracture, sold at 8d. per lb., at which sales have been made privately. Medium and bold round Shensi, with three-quarter good pinky fracture, one-quarter grey and dark, was limited at 3s., and for fine bold flat 3s. was refused. Canton was all bought in.

SARSAPARILLA.—The grey Jamaica offered was not ready in time; 1s. 4d. is asked privately, and there is a possibility of still higher prices.

SENEGA.—There has been an improvement in the demand this week at from 3s. 8d. to 3s. 8½d. per lb. net, and the tendency is still towards higher rates. In auction 5 bales were limited at 3s. 9d. In some quarters 3s. 10d. is said to have been paid for quantity.

SENN.—Only 11 bales of Tinnevely leaf were offered, and sold at from 1½d. to 1½½d. per lb. for common yellowish leaf.

The exports from Hodeida during 1901 amounted to 644 bales, valued at 510l. They were chiefly sent to Egypt, and were carried by Turkish ships of the Idare Makhssusi line.

STROPHANTHUS.—An oddment of two pockets of Kombe seed sold, without reserve, at 1s. 10d. per lb. Privately, 2s. 6d. to 2s. 8d. has been paid for good Kombe, and a small lot of fine has been sold at 5s.

WAX, BEES'.—The offerings comprised small lots only, there being an absence of Jamaica, fine quality of which is scarce and wanted. Very dark mixed Zanzibar block sold at 5l. 5s., and for fair block 6l. 17s. 6d. was paid for a bag. Good Mozambique rolls sold at 7l. 10s. Five cases fine yellow Bombay brought 6l. 5s., and a case of Madagascar realised 6l. 15s. for part dark. Three bales good Nyassaland brought 6l. 15s. Good bright red West Indian from St. Lucia was limited at 8l. 10s. Mogador at 6l. 10s. per cwt.

The Buying Brokerage.

The agitation to abolish the ½ per cent. brokerage for goods bought in the public sale does not seem to have met with success, and inquiries go to show that the matter has since been dropped. It was about the middle of December last that a letter was sent to some twenty-odd drug-exporters, asking them to co-operate

with a committee representing the following—viz., Messrs. J. Allenspach, Ashmore & Sons, Benckendorff, Berger & Co., v. Berg & Heinrich, Otto Brückmann & Co., Herm. Buchler, Clarke & Smith, A. Faber & Co., Aug. & Geo. Fischer, N. A. Frischmann, C. F. Gerhardt, Fred. Graf, Grosscurth & Luboldt, W. N. Happe & Co., Hy. Keck & Co., E. & H. Oldendorff, L. Raiser & Co., Stallman & Fulton Co., Sutcliffe & Gosden, Tomkins, Hildesheim & Co., Wagler & Co., Hy. Wheeler.

Japanese Isinglass.

The *Osaka-Kobe Trade Review*, under date of December, 1902 states that some firm offers of Japanese isinglass of the new crop have lately been made at \$75, but no cable reply has been received in response. The views of exporters appear to be a shade under this figure, and sellers' ideas are irregular, some asking \$75 and others nearer \$80. The weather is too warm for manufacture at present, and it is expected that the opening of the works will therefore be delayed by about a fortnight.

The "Drug Habit" in the United States.

In connection with an article on the drug habit in the United States, the *National Druggist* has published an interesting table, showing the importations of opium and coca, with their derivatives, during the last five years. The figures are said to be "very accurate and complete," having been compiled by the Bureau of Statistics, and are as follows:—

—	Opium, Medicinal	Opium, Smoking	Morphine and Salts	Coca- leaves	Cocaine and Salts
	Lbs.	Lbs.	Oz.	\$	\$
1898	72,287	117,298	25,791	53,752	59,660
1899	343,283	127,082	13,081	28,388	40,141
1900	537,004	129,336	26,208	591	112,375
1901	491,448	139,519	50,819	483	176,948
1902	548,674	163,442	38,002	—	254,704

In commenting on the above figures (the values of which we have omitted), the *N.D.* states that "It should be noticed that where there is a decrease of the derivative there is a corresponding larger increase in the crude product, and *vice versa*, showing, also, the decrease in manufacture of cocaine and the increase of morphine manufactured in the United States. The increase in population in the last five years has been 10 per cent. A careful investigation among physicians assures us that the legitimate use of cocaine has not increased, since its greater use in general surgery is offset by a more careful use in nose and throat work and in general practice. Because of its now known dangerous character it is, of late, seldom ordered in a prescription to be handled by the patient. The use of cocaine in operative surgery, and the relief of pain by the advances in surgery, largely tend to lessen the legitimate use of morphine. The prices of these products vary but little from what they were in 1898, so that the increase of over 400 per cent. in the imports of cocaine is very significant; while the increase of nearly 500 per cent. in the quantities and over 600 per cent. in the values of opium and morphine is very startling."

Japanese Ginger.

The exports of ginger from Japan to various countries during three years, 1899 to 1901, were as under:—

—	1901		1900		1899	
	Quantities	Value	Quantities	Value	Quantities	Value
Australia ..	Kin 14,745	Yen 1,918	Kin 66,691	6,602	Kin 83,110	Yen 6,850
British India ..	272,661	32,456	629,221	62,644	249,769	20,271
China ..	124,012	7,141	19,800	1,059	23,460	345
Egypt ..	37,162	4,625	—	—	4,300	255
Great Britain ..	16,867	2,468	8,474	691	282,771	15,890
Hong-Kong ..	655,583	80,062	314,759	35,071	221,646	17,091
U.S.A. ..	2,833	125	275,406	27,150	47,309	3,488
Other countries ..	38,496	2,173	47,364	1,745	72,232	2,104
Total ..	1,162,359	133,968	1,361,715	134,932	989,597	66,264

[Kin=1½ lb. avoird.; Yen=2s. 0½d.]

The above figures present some remarkable ups and downs in the destinations. British India, the largest consumer of Japanese ginger, dropped about one-third compared with 1900. Chinese imports substantially increased, and Egypt is practically a new-

comer. The quantity sent to Hong-Kong, mostly in transhipment for Europe, was more than double that in 1900; while the figures for the United States show a considerable shrinkage.

"Millions of Tons of Copper Sulphate."

At a meeting of the Copacquire Copper Sulphate Company (Limited), held in London recently, the Chairman stated that the object of the company, which was registered in 1900, was to acquire a deposit of natural sulphate of copper, which he had no hesitation in saying was unparalleled in the world, and, in view of the peculiar conditions, only under which it can exist, is likely to remain unique for all time. The Copacquire deposits, he said, are situated in a barren range of hills near Huatacondo, in the province of Tarapaca, in Chili, the nearest port being Iquique. The manager of the mine (Mr. Currie), who made the first report on the property in 1898, stated that there were over five million tons of mineral, containing soluble copper averaging 2 per cent., already proved and ready for mining. Students of mineralogy would tell them that sulphate had been found in rock-cavities in old Roman mine-workings in the Rio Tinto mine, and beautiful crystals have been brought from elsewhere; but a mine of sulphate—hills 600 feet high impregnated with sulphate, millions of tons of sulphate actually in sight—seemed so incredible, that the company was not satisfied to rest on the unsupported statements of Mr. Currie, but requested Dr. Venator, of the firm of Fritsch & Venator, of Magdeburg, sworn chemists to the Chamber of Commerce, to make an independent report. Dr. Venator, after visiting the property, considered Mr. Currie's report quite reliable, but, at the same time, he was convinced that the lowest average copper-content was at least 2½ per cent. As regards possible profit, the question had been often asked him (the Chairman) at what price can the company dispose of its produce and what profit can they make on it, as the production of such a large quantity of copper in the form of sulphate would probably depreciate the price in the market. The reply to this question was that there might be a fall in the present price of copper sulphate, but that the eventuality was not so serious as might appear, as the sulphate could easily and cheaply be converted into pure metallic copper. After quoting figures in support of his statements, the Chairman estimated the profit at 292,500*l.* (taking the selling-price of sulphate at 18*l.* per ton), which sum, divided amongst 300,000 shares, gave a dividend of 19s. 6*d.* per 1*l.* share per annum. A shareholder asked: When would the directors be in a position to pay a dividend? and the Chairman, in reply, stated that they hoped to get to work about February.

Cablegrams.

HAMBURG, January 22:—Santonin has been advanced to 47*m.* per kilo. Cod-liver oil is advancing; sugar of milk is dearer at 82*n.* per 100 kilos.; and Japanese wax is firmer.

NEW YORK, January 22:—The market here is quiet. Opium is firm at \$2.73 per lb. Cascara sagrada is strong at 14*c.* per lb. Rio ipecacuanha is firm at \$1.55 per lb. Menthol is firm at \$7.50 per lb. The market is very bare of gamboge, and \$1 per lb. is now asked for pipe. Senega is firmer at 90*c.* per lb.

AMSTERDAM, January 22:—At the first cinchona-auctions of the year, held to-day, the record quantity of 10,215 bales and 775 cases were offered, containing 46,503 kilos. (1,620,000 oz.) quinine sulphate. Of the above quantity 9,615 packages were sold at an average unit of 6.45*c.* per ½-kilo., as compared with 6.25*c.* per ½-kilo. paid at the auctions on December 11. The approximate quantities of quinine sulphate purchased by the principal buyers were as follows: The English and American factories, 13,407 kilos.; the Brunswick factory, 6,459 kilos.; the Mannheim and Amsterdam factories, 6,158 kilos.; the Frankfort-on-Maine and Stuttgart factories, 5,920 kilos.; and various buyers, 7,849 kilos. The prices paid for manufacturing bark ranged from 8¼*c.* to 73¼*c.* per ½-kilo., and druggists' bark from 5¼*c.* to 53¼*c.* per ½-kilo.

GOODS SUPPLIED.—At Shoreditch County Court on Thursday, January 22, Marion, James & Ker (Limited) recovered 14*l.* 10*s.* for goods supplied to Dodd's Drug-stores. A counter-claim for 20*l.* damages for loss of trade, &c., caused by the negligence of plaintiffs packing wrong-size bottles of the defendants' patent "Crenolia," was ordered to stand over.

GREGORY'S POWDER.—At the Lambeth Police Court on Thursday, January 22, Frederick Carter, herbalist, Queen's Road, Peckham, was fined 10*s.* and 17*s.* 6*d.* costs for selling Gregory's powder which contained 78 per cent. of hydrated carbonate of magnesia instead of 66 per cent. of light magnesia. The defendant said he bought the article from a highly respectable firm. He always ordered B.P. preparations.

South African News.

(From our own Correspondents.)

Note.—The CHEMIST AND DRUGGIST is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz. :—

SOUTH AFRICAN PHARMACEUTICAL ASSOCIATION.
PHARMACEUTICAL SOCIETY OF CAPE COLONY.
NATAL PHARMACEUTICAL SOCIETY.
TRANSVAAL PHARMACEUTICAL SOCIETY.
RHODESIA PHARMACEUTICAL SOCIETY.

CHEMISTS AT CRICKET.—The Amalgamated Chemists' Club of Cape Town played the Mowbray Cricket Club on Boxing Day. The match took place at Mowbray, Cape Peninsula, and ended in a splendid win for the Chemists. A chemists' cricket match is a new idea at the Cape.

AMERICAN MAIL MATTER.—We are requested to point out, says our Cape correspondent, that a considerable quantity of mail matter continues to reach South Africa from the United States short-stamped. Our American friends should remember that a 2c. stamp will not carry a letter to South Africa, even though it weighs only $\frac{1}{2}$ oz., but that a 5c. stamp is required. For an incorrectly and badly addressed mail the United States takes the lead.

NATAL NOTES.—Christmas in Durban has been surrounded by more of the sentiment of "Happy Christmas" this year than we have had for the past three years, consequently, writes our Natal correspondent, people have been more inclined towards festivity, and the storekeepers have reaped the benefit. Instead of the hot, sunny weather that we expect at Christmastide, we have had cloudy skies and strong winds, with occasional rain.—The great event of the season has been the arrival of Mr. Chamberlain, who met with as hearty a reception as any man could have. The Town Hall was crowded, and every sign of loyal demonstration was shown, conclusively proving to the Colonial Secretary that in Durban he has every sympathy and support in his mission.

SCARCELY PRACTICABLE.—Everything happens for the best, we are told, and it may be that the catalogue of goods and prices produced by the Cape Town Adjustment Committee could never have been made wholly practicable. The promoters of the scheme had ever faith in it. For a short period all might have gone well with the idea, but with the advent of the Army and Navy Stores—and the time is not far distant when this concern will be represented in Cape Town—it was doomed to failure. Those who have worked on the committee, and who have contributed financially to cover the expenses, are entitled to some sympathy, but we fear that this is all they will get out of the departure. Grave doubts are entertained as to whether they will ever gain the end in view, or hold it even if gained.

NEW PRACTITIONERS.—Licences have been issued authorising the following gentlemen to practise as medical practitioners in the Cape Colony: Eric Wilson Danby Swift, M.B. (formerly of Lanwell Asylum, London). Myles Graham Taaffe, M.B., B.S. (late of Lurgan, Ireland), James Luckhoff, M.D. (formerly of Edinburgh, Scotland), Edward Archer Brown, M.R.C.S., L.R.C.P. (Civ. Surg. S.A. Field Force, 1900–1901), Archibald Kidd, M.R.C.S., L.R.C.P., D.P.H. (late of Ilford, Essex), John McDougall, M.B., M.S. (late of Exeter), Johannes Stephanus Enslin, M.B., B.S. (late of Rotherham), Charles James Lownds, L.R.C.P., L.R.C.S. (formerly of Finsbury Park, London, N.), Edward William Smith, M.B., M.S. (not on the British Medical Register, 1902).—The following have been licensed to practise as chemists and druggists in the Cape Colony: John Forbes, chemist and druggist (late of Fyvie, Aberdeenshire); Charles Macklin, pharmaceutical chemist, P.S.I. (formerly of Stockport, Cheshire); Edmund Shearer Mackenzie, chemist and druggist (Colonial Pharmacy Board, Cape Town, 1902).

SULPHURIC ACID IN THE TRANSVAAL.—The Johannesburg correspondent of the *Financier* reports that the New Transvaal Chemical Company is doing a large and prosperous business. This company's works are situated on the ground of the Witwatersrand Gold-mining Company

(Limited). The sulphuric-acid works form the basis of the manufactory. This department has a producing-capacity of about 300 tons per month. The acid is manufactured from pyritic-gold concentrates purchased from the gold-mines. These concentrates contain from 4 oz. to 12 oz. of gold per ton. The price paid varies according to the gold-contents, but from 80 per cent. to 90 per cent. of the gold-contents is paid (according to the degree of richness), and nothing whatever is charged for treatment. The acid is concentrated up to the required sp. gr. in one of the most modern forms of concentration, apparatus erected in a separate building adjoining the chambers. So well has this concentrating-plant done its work that another complete installation has been ordered, and is now on its way out from France. Another branch of the company's business is the manufacture of paints, for which elaborate plant, consisting of grinding, mixing, and rolling machines, will shortly arrive from England to take the place of the present machinery, which has been found inadequate to cope with the requirements.

EMIGRANTS, PLEASE NOTE.—The Pharmacy Board of Cape Colony have passed the following amended regulations, and they were published in the *Gazette* on December 26, 1902 :—

No candidate shall be admitted for examination by the Board after January 1, 1896, who has not obtained a certificate showing that he has passed a standard in Preliminary and general education, as follows :—

(a) Any Preliminary examination accepted as such by the Pharmaceutical Society of Great Britain ;

(b) School Higher examination of the Cape University ; or

(c) Any examination of a legally constituted examining body, approved by the Pharmacy Board, provided English, Latin, and arithmetic were included in the subjects of the examination for which the certificate was granted.

No foreign or Colonial certificate will be accepted unless the foreign or Colonial authority issuing the same shall have arranged to grant reciprocity to those holding this Board's certificate, and unless the said certificate authorises the holder thereof to practise in the country in which it was issued.

The following certificates will be accepted by the Board as sufficient evidence of the competency of any person holding the same to practise as a chemist and druggist in this Colony without further examination: Major certificate of the Pharmaceutical Society of Great Britain; Minor certificate of the Pharmaceutical Society of Great Britain; certificate of the Pharmaceutical Society of Ireland; examination certificate of Pharmacy Board of Victoria; examination certificate, Pharmaceutical Society, Tasmania; examination certificate, Pharmacy Board, New South Wales.

This looks like practical Imperialism.

PIONEERING.—The publisher of THE CHEMIST AND DRUGGIST issues a list of towns in which subscribers to this journal are in business. He will now have to add to the list the name of a town which at present is a town in name only, but in which, nevertheless, a chemist and druggist has started business. The following letter is evidence of the apparent paradox :—

Livingstone,
N.W. Rhodesia,
December 11, 1902.

DEAR MR. EDITOR.—I left Bulawayo the 1st of September, and only arrived here a fortnight ago, and since then have been very busy putting up building, fixtures, and opening stock. I am unable to obtain P.O. here, but am sending you a sov. to pay for the extra copies of *C. & D.* already forwarded, and to pay in advance until such time as it may be absorbed.

There is no township laid out here at present; in fact, the authorities have not as yet decided on the site, so I am just dumped down north of the Zambesi, waiting till such time as the powers that be take action. Of course, there is not much doing at present, but the railway is being pushed on to the Victoria Falls, and when that gets here there will be a constant flow of tourists to see what is undoubtedly one of the greatest sights of the world. Must fill up time in the meanwhile hunting lions, hippo, &c., of which we have a fair number, tho' buck and smaller game are scarce just here.

Wishing the *C. & D.* the compliments of the season,

I remain, yours sincerely,
FRANK R. FRANKS.

Mr. Franks is a Minor man (July, 1891) and had been with Messrs. Smart & Copley, of Bulawayo, before he trekked north. More than we will wish him success in Livingstone, to which the postage is 2 $\frac{1}{2}$ d. per $\frac{1}{2}$ -oz.

Pharmaceutical Society of Ireland.

EXAMINATION RESULTS.

Pharmaceutical Licence.—There were 22 candidates, and the following 9 passed: D. Parke, T. H. O'Connor, P. J. Timoney, F. J. Gillespie, C. Finucane, G. H. Batt, J. W. Burns, J. Kilpatrick, J. Dale.

Registered Druggist.—There were 15 candidates, and the following 8 passed: T. H. L. Adderley, P. J. D'Arcy, J. B. A. Fletcher, J. McCarthy, M. McNally, J. Morrow, H. Nightingale, W. Reid.

EXAMINATION PAPERS.

THE questions set at the examination for Pharmaceutical Licence were these—

CHEMISTRY.

1. Write equations for the reactions which take place when solutions of the following substances are mixed:—

Ferric sulphate and ammonium sulphide.

Copper sulphate and potassium iodide.

Hydrocyanic acid and iodine.

Ferrous sulphate, ferric sulphate, hydrocyanic acid, and caustic potash.

2. How is solution of chlorinated soda prepared, and how is its strength ascertained?

3. How would you proceed to determine the amount of strychnine in liquid extract of nux vomica? Give the reason for each step of the process.

4. How would you test qualitatively for arsenic, antimony, and tin in a mixture of those three substances?

5. How would you determine the solubility in water at different temperatures of a substance such as lime?

6. Write the graphic formulæ of the groups characteristic of primary, secondary, and tertiary alcohols; and show how an alcohol can be diagnosed as primary, secondary, or tertiary by the products of its oxidation.

MATERIA MEDICA.

1. State sources of lactose and sucrose, and how they may be distinguished.

2. Enumerate the official ligna. Give sources, N.O., and characters.

3. Name the official varieties of soap. State composition and tests.

4. What do you understand by fixed oils? and of what fatty acids are they compounds? Name those official, giving sources and N. O.

5. State source, N.O., and parts used of—Allspice, cloves, nutmegs, ginger, cinnamon, and black pepper. Give preparations of each.

BOTANY.

6. Explain the following terms:—Bract, stipule, spine, petiole, prickly, vitte, and pumna.

7. What is a vascular bundle? Of what parts does it, in the stem of a dicotyledon, consist? and what are their respective functions?

8. Contrast the N.O.'s Solanaceæ and Labiate. Give B.P. representatives of each.

PHARMACY.

1. Describe the process you would adopt to prepare strychnine.

2. How are the following prepared:—

Liquid extract of liquorice,

Oxymel of squill,

Effervescent magnesium sulphate,

Vinegar of ipecacuanha?

3. Required $\frac{1}{2}$ pint of solution of corrosive sublimate in glycerin (1 in 1,000 by weight). How much sublimate would you require?

4. Give the composition and strength of—

Liquid extract of cinchona.

Syrup of senna.

Fowler's solution of arsenic.

Compound tincture of benzoin.

5. What precautions are necessary when selling by retail—chloroform, ether, laudanum?

THE NEW CALENDAR.

WE have received a copy of the 1903 edition of the Calendar of the Pharmaceutical Society of Ireland, which is

supplied for 1s. 9d., post free. It is corrected up to December 31, 1902, and contains full information about the Society, the Acts under which it works, regulations, and resolutions. The registers of pharmaceutical chemists, chemists and druggists, registered druggists, and pharmaceutical assistants are included, as well as lists of the members and associated druggists of the Society.

Pharmaceutical Society of Great Britain.

WE have received from the Registrar of the Pharmaceutical Society of Great Britain the following list of candidates who were granted certificates at the

MINOR EXAMINATION IN EDINBURGH

held this month. The candidates examined numbered 114, of whom eighty-two failed and the following thirty-two passed:—

Baker, E. H. S., Newcastle
Beverley, T. L., Nottingham
Borrowman, Agnes T., Melrose
Bryce, John, Dalbeattie
Davidson, A., Leslie
Dryerre, Henry, Blairgowrie
Fyfe, H. M. F., Glasgow
Gauld, J. E., Edinburgh
Geake, Henry, Edinburgh
Gordon, T. B., Wolverhampton
Hay, James, Banff
Hines, H. C., Harrogate
Hutcheon, John, Keith
Johnstone, John, Coatbridge
Lees, H. C., Nottingham
Lewin, I. B., Oudtshoorn, Cape
Colony.

Lindsay, J. R., Peebles
Lockhart, Jeanie L., Irvine
McCaig, R., Edinburgh
McRobb, W. C., Dufftown
Neill, W. M., Dalkeith
Pike, E. J., Edinburgh
Reid, J. A., Ellon
Robinson, J. L., Middlesbrough
Rutherford, R. J., Newcastle
Scrafton, Ralph, Middlesbrough
Sims, W. W., Bill Quay-on-Tyne
Smith, J. H., Irvine
Sturrock, J. J., Glasgow
Syme, George, Edinburgh
Tait, J. N., Dundee
Young, D. A., Dunfermline

Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with O. N. DALTON, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," January 7, 1903.)

"MANICURACEE" (no claim for "Manicure"); for perfumery, &c. By E. Jay, 157 New Bond Street, W. 249,351.

"KARMUSK" for a skin-preparation. By the Karmus Manufacturing Company, 80 Tammill Street, E.C. 249,604.

"RAPTURA" (no claim for "Rapture"); for a perfume. By A. J. Barnes, 1 Charlemont Street, Dublin, pharmaceutical chemist. 250,365.

(From the "Trade-marks Journal," January 14, 1903.)

"OXELOID"; for chemicals. By the Metallic Manufacturing Company, Glasgow Street, Ardrossau, N.B. 250,288.

"CHLORATUS" (no claim for "Chlorate"); for goods in Classes 2 and 47. By H. J. Gardiner, 90 Cannon Street, E.C. 250,071 and 250,072.

"ELYTHOS"; for chemicals in Classes 2 and 3. By Ch. Buchet et Cie., Paris, c/o G. G. M. Hardingham, Clun House, Surrey Street, W.C. 250,353 and 250,354.

"PYNETHOLE" (no claim for "Pine"); for goods for sanitary purposes in Class 2. By W. H. Fowler, 38 Station Road, Redhill, pharmaceutical chemist. 250,432.

Facsimile signature; for an eczema-cream. By Nurse M. A. Carter, Over House, Over, Cambridge. 249,086.

"NITSOL"; for a pharmaceutical preparation. By T. Christy & Co., 12 Old Swan Lane, E.C. 249,820.

"MENTHOLYPTUS" (no claim for "Menthol"); for medicine. By H. W. Kilby Pears, 2 Hove Park Villas, Hove, pharmaceutical chemist. 250,188.

"QUERILLINE"; for a cough, &c., remedy. By H. Watts, High Street, Rainham, Kent, chemist and druggist. 250,135.